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CAOUTCHOUC GUTTA-PERCHA

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RUBBER GOODS SUBSTITUTES.

IT is often remarked that rubber is one of the necessities of the present day—that no matter what its cost, it must be used. The fact is, however, that there are very few goods made of rubber to-day that could not be supplanted by very excellent makeshifts. Just as soon as the price of crude rubber becomes too high, the rubber goods substitutes come to the front and gain ground that they never lose. In footwear and in belting, leather treated to make it waterproof, often fills the bill. In clothing, rainproofs and slickers are bought. Instead of hard rubber, cellulose, galalith and various compositions find greater use. Elastic bands are replaced by twine and metallic fasteners; rubber packings by treated fiber and metal; rubber matting by lineoleum, fiber, or wood and metal; rubber carriage cloth by artificial leathers; rubber cements by other adhesives; and hosts of minor articles by a variety of proxies of which the substitution of the soapstone for the hotwater bottle is a good illustration. In other words, rubber is rarely a necessity. Perhaps the most notable case of absolute dependence upon it is instanced by the automobile, which would not be possible to-day without the rubber pneumatic tire. It is certain, however, that if every trace of rubber manufactured and unmanufactured disappeared from the face of the earth to-day, business would go on, industries would adapt themselves to other materials, and the world's progress would not be appreciably stayed. This is why too high a price for crude rubber is dangerous. With 50 cent rubber assured the business of the world could be doubled in two years; with $2 rubber the present volume would drop off more than half.

THE PRICE OF RUBBER GOODS.

HIGHER prices for manufactured rubber goods all along the line have come and are coming. For once in the history of the trade manufacturers are not stopping to consider what the others are doing, but are changing their quotations as the crude material advances. This is just as it should be. There is not the slightest danger that prices will go too high. The competition of the man who is held by contract, who does not know his costs, or who is extremely speculative, will regulate that. A very encouraging feature of the situation is the fact that the large wholesalers and buyers seem to feel the stress under which the manufacturers are laboring, and if they are not advising advances in prices, they at least do not view them with distrust.

PROSPERITY AND DEAR RUBBER.

OUR regular British correspondent on another page voices a suggestion which is apt to be heard whenever crude rubber prices are on a rising plane—that it may be due to "manipulation." This is an euphonious word, and its use is safe because the assertion involved cannot readily be proved or disproved. Besides, while the charge of "manipulation" may be meant to be uncomplimentary to somebody, it neither carries a criminal imputation nor is aimed at any one in particular. It is, therefore, harmless.

Usually a rise in rubber prices is attributed in Europe to influences on this side the Atlantic, and *vice versa*. But just where or how rubber prices are fixed has not yet become a simple question. Assuming that advances in rubber are due to speculative manipulation, how about the fall in prices which generally follows?

All buying and selling of commodities is more or less speculative, but what is criticized is the alleged control of the market by other influences than mere supply and demand. It is certain that much trading in crude rubber is of the class known as "short" sales, which involves an effort to depress prices. Most purely speculative effort in the rubber market is of this kind, instead of creating a "corner" in the supply and forcing consumers to pay exorbitant prices. Most attempts to corner rubber have resulted disastrously to the promoters, and if high prices have resulted a speedy "slump" has followed.

Whatever the cause of fluctuations in rubber, however, each succeeding slump has stopped a higher point than the one before, until it would now appear that the

normal price of rubber is twice as high as twenty years ago, in spite of the greatly increased production meanwhile. Surely this general and long sustained advance—to say nothing of the earlier steady advance from 25 cents per pound—cannot be attributed to any purely speculative influences. The demand for rubber has grown steadily from the date of its first utilization, and continues to grow. Whatever may be the future capacity of the world to produce rubber, it is now below the world's needs for the material.

The automobile situation in America alone points to a vastly enlarged increase in the world's demand for rubber. During the recent year of depressed business there was no loss of activity in the automobile industry in the United States, but each year showed a larger production of vehicles. This year's output is larger than ever, while every indication points to a still greater rate of increase for 1910. The condition is near at hand when automobile tires alone will call for as much rubber as was consumed in the whole industry in the United States ten years ago—the date of the introduction of the automobile. The condition of the country as a whole is most satisfactory. The period of depression referred to did not leave the country poorer, but in many respects in a better condition, and there is reason to expect a more notable era of progress than has yet been witnessed. To note a single feature, the normal condition of agriculture in America is the ownership of the land by the men who till it—every farmer his own landlord—with such results that the farmers are becoming notably wealthy as a class. The typical farmer to-day is an automobile owner.

But the future of the rubber industry will not be concerned with automobiles alone. The commercial truck and the farmers' and villagers' buggy demand rubber tires. And all the other branches of the rubber industry show a steady rate of growth. While the sales of mechanical goods, footwear, and the like during a year or so past fell off in volume, the profits reported by the large manufacturers were no less than in former years, and the condition of the industry was never more promising than now. It is such conditions of prosperity in America—to say nothing of the rest of the world—that make rubber cost more—not the manipulation of a few traders buying and selling. They could not sell at current prices unless the world wanted rubber goods in larger volume year after year. Better consider, as affecting rubber prices, such factors as the "record" American corn crop this year, estimated at 3,000,000,000 bushels, and the sale of which will help to swell so many farmers' bank accounts.

A SUCCESSFUL RUBBER CLUB.

TEN years ago the New England Rubber Club came into being with about twenty members. Since that time it has steadily grown until now its membership amounts to about 250. The fact that the club has a large membership outside of New England and that the old name is no longer accurately descriptive led its executive committee to suggest in its stead the broader name, The Rubber Club of America. At a recent business meeting of the club this change was made. There is to-day, therefore, no New England Rubber Club; or rather, the old club lives, but under a new name that promises greater growth and influence than has been possible hitherto.

The club owes its existence specifically to the fact that religion, politics, or "shop" are not discussed within it. No member tries to exploit it for his own company, or firm. Trade differences are laid aside, and all meet as friends. If it should happen that a "whisperer" began to sow seeds of dissension, his diatribes would be ignored or promptly laughed out of existence. Trade loyalty in its broadest sense, and an appreciation of the leaders of the industry, have from the beginning been deep rooted sentiments. With its horizon broadened and its aims unaltered, there is no reason why another ten years may not find it greater, and more prosperous—a potent and practical preserver of trade integrity and industrial peace.

THE ACRE RUBBER CONGRESS.

IT is probable that the Congresso Industrial Seringueiro to be held this month at Senna Madureira, at the initiative of the Prefect of Alto Purus, in the Acre, is not likely to suffer by comparison with any of the "rubber congresses" held so far. The conference held in connection with the Ceylon Rubber Exhibition of 1906 was notable for its effect in focusing general attention upon the growing importance of the rubber industry, and the success which had been attained in rubber planting—something which had been talked about for decades, but still was regarded by many people as somewhat mythical. The Djember congress, in 1907, was rather local, having for its purpose chiefly the intelligent stimulation of rubber culture in the Dutch East Indies. The conferences at the Olympia, London, in 1908, were more truly international in character, and broader in scope, with a correspondingly broader effect—especially in respect of pointing to the importance of plantations in contributing to future supplies of rubber.

An editorial article headed "A New Light on the Amazon" in THE INDIA RUBBER WORLD, January 1, 1907 (page 104), reviewed certain official references to rubber by the governors at Pará and Manáos, clearly traceable to the Ceylon exhibition and its results. They were among the first direct evidences of the awakening of the giant Amazon to the fact that in the rubber interest it might actually have rivals. Long had the people of the "Pará rubber" country rested secure in the feeling that their principal product for export could not be duplicated elsewhere on the globe; it gave them a title to distinction and the basis of an enduring prosperity. But when the International Rubber Exhibition of London was held the Amazon rubber states were ably represented there, with the aid of displays of products which challenged the attention and competition of the world.

Out of all this has grown the movement for a conference of Brazilian rubber producers, to take council how they may not only protect their present position of supremacy in rubber, but, further, how so to systematize the business as to enhance and make more secure their profits from it. And the experimenters in rubber elsewhere—in Ceylon, or whatever other country—who have called to their assistance the whole realm of cultural science and the highest financial skill, may rest assured that the *seringueiros* and *aviadores* of the Amazon and its tributaries will not be slow to avail themselves of every new suggestion that may be applicable to the Amazon rubber regions.

From this new competition the whole world will profit. It is hardly imaginable that enough rubber can be planted anywhere for decades to come to keep pace with the growing demand for this material. Hence the pressing need for the rubber planted by nature in South America, and the best development of which in the past has not come to pass because the demand was less pressing than now.

We devoted no little space some years ago to the Acre territory, when it was the subject of concessions held by Sir Martin Conway and his associates in England and America, who held the idea that a fortune awaited the opening of that region along modern ideas. The natives were alert enough, however, to hold the future of the country in their own control, and so far as rubber is concerned, at least, the development of which Sir Martin dreamed seems near at hand.

Our salutations to the Congresso Industrial Seringueiro at Senna Madureira, in the Acre, August 8-22!

ONLY A REFERENCE TO THE TARIFF.

THE progress made at Washington in revising the tariff schedules of 1897 is not yet sufficient to permit a statement in this issue of the final shape of any section of the new Act. There is no indication, however, of any important changes of direct application to the india-rubber industry. As has been surmised in these pages, nothing will be found in the work of the Congress in contravention of the theory of protection which so long has obtained in America; the questions in hand have been rather how to provide sufficient revenue with the minimum pressure of burden in any particular quarter.

Into the details of the debates we cannot enter here. And when the result is finished it shall be within our scope to analyze the schedules, rather than to comment upon them. This may be left to the political journals.

At the same time the question of protection *v.* free trade is brought up in connection with an interesting piece of trade news in this issue. At least the reported intention of an important British rubber manufacturing company to establish branch works in Germany, in order to avoid the import duties imposed in that country, is the text for comments by a great London daily from which we quote, that England has, under her present fiscal system, no such means for the protection of her own industries from competition from the outside.

It is not so long since two important rubber tire firms abroad, whose products had gained a foothold in the American trade, transported a portion of their plant across the Atlantic rather than pay duties, with the result that the money disbursed for labor on these tires is now expended on this side. It appears that examples of this kind have the same ultimate effect upon the people's representatives at Washington, whatever may have been their fiscal theories, personally, before coming to take an active part in public affairs.

WE CONGRATULATE "THE INDIA-RUBBER JOURNAL" both upon the completion of its first quarter century of publication and upon the high standard of excellence which it has attained.

MUST HIGHER PRICES COME?

[FROM THE "GUMMI-ZEITUNG," BERLIN, JUNE 25.]

A MERE perusal of the latest market reports concerning the rubber trade will lead to the conclusion that the question which serves as a heading for this article is almost superfluous. Other similar reports will undoubtedly follow, and the rubber trade will have to prepare for a period of unrest ,marked by a sharp struggle for the establishment of higher prices for rubber goods. Such contests, moreover, will be unavoidable, since present conditions leave no other available expedient to rubber manufacturers than that of adjusting their prices to the advance in the cost of the crude material, unless they are satisfied to manufacture at a considerable loss, or are willing to make materially inferior grades of goods.. Even those who in the earlier part of the current year were in a position to fall back on a supply of rubber purchased at lower prices are now compelled to follow suit by advancing their prices, because all hope of seeing the market decline below present figures has not only disappeared, but there are even indications that further advances may be expected.

An event which was considered impossible even as late as the end of last year—viz: a quotation of 6 shillings on fine Pará—has nevertheless become a fact, and prices are showing a tendency to advance still further. The market labors throughout under great excitement, manufacturers are not in a position to hold back and wait, and there is a constant demand, since purchases for several months past generally have been restricted to the covering of immediate requirements. These conditions readily explain the fact that the market for all medium grades was likewise much stronger, and that present quotations on the same show even a greater advance than those in the leading grades, good quality African lots having been sold at higher prices than ever before.

In view of this enormous advance, the equal of which has been witnessed in the rubber industry only once before, there is evidently no other available expedient than that of adjusting the prices of manufactured goods, at least to some extent, to prevailing conditions. There is no other way out of the difficulty, and although the managers of many manufacturing concerns may be averse to such a measure, and dealers may find it difficult to be certain that it is absolutely necessary, it is a fact that the prices of rubber goods must be advanced by common consent.

The advance in the rubber market has already continued for more than six months, and every expectation that there would be a break has been foiled. The cost of crude material was constantly increased, and as early as December of last year an advance in prices of goods was unanimously decided on, but only partially carried out, the belief in a weakening of the market being too strong, at that time. At present, however, it would be

difficult indeed to find any one not convinced that it would be simply impossible to maintain former prices for rubber goods. An advance in prices is unavoidable, whether it be the result of joint action on the part of the manufacturers, or whether manufacturers raise their quotations as far as necessary, according to their individual position, and the sooner such an advance is carried into effect, the better will it safeguard the manufacturers against loss.

Our industry has once before found itself in the same position, during a similar advance of the market which occurred a few years ago. At that time the manufacturers met prevailing conditions by advancing their prices thrice, each time by 10 per cent. in accordance with the continued advance in the rubber market. The present situation, however, is more serious. This time the advance was more rapid and abrupt than a few years past, and especially the medium grades, to which manufacturers were wont to have recourse to a certain extent at least, were much more rapidly affected by the present advance. There is at present no possibility of avoiding the issue, and crude rubber, including even the inferior grades, must now be purchased at an advance of from 40 per cent. to 60 per cent. above last year's prices.

This enormous increase in the cost of the most important crude material within one year, is made still more serious by unfavorable general business conditions which make it difficult for manufacturers to find an outlet for their products both at home and through export channels. But notwithstanding prevailing conditions, or rather in consequence of the same, it has now become necessary to take, with the greatest determination, the step which alone can safeguard the rubber goods manufacturers against heavy losses, and the trade against serious injury. *The prices of rubber goods of every description must be materially advanced!* They must be advanced sufficiently to maintain established standards of quality and to make it possible to do business with a margin of profit. The contentions which will result from the taking of this necessary step—and they will most certainly occur—are an unavoidable feature in the strife to insure the future of our industry under wholesome conditions. No one can avoid them, because the conditions of the market compels every one to take action.

CEYLON RUBBER SALE CONTRACTS.

THE sale of rubber ahead under contract by a number of Ceylon plantation companies for the current year [see THE INDIA RUBBER WORLD, May 1, 1909—page 275] has proved so satisfactory that several of the companies are reported to have concluded similar arrangements for 1910. These contracts provide for the delivery to Colombo merchants at 3.70 rupees [= $1.20 gold] per pound, for fine rubber. Two contracts specify 3.60 rupees [= $1.16.8 gold] for second grade. No contract is mentioned as specifying scrap. This rubber remains to be marketed, and the price to be paid eventually by the consumer includes the Colombo merchant's profit, cost of transportation, and selling expenses in London or New York. The fact that Colombo merchants are willing to contract to pay $1.20 for deliveries up to February 31, 1811, is an indication of a firm confidence in continued high prices for rubber.

Grand Central Ceylon Rubber Co., Limited, whose existing contract at 3.70 rupees calls for 60,000 pounds this year, specify up to 112,000 pounds of No. 1 crepe next year at the same price, and 20,000 pounds No. 2 crepe at 3.60 rupees [= $1.16.8], delivery between July 1, 1909, and January 31, 1910.

The Seremban Estate Rubber Co., whose contract for this year covered an estimated production of 120,000 pounds, specify in their contract for next year 180,000 pounds. Their contract runs to December 31, 1910. Pallagodda estate [Kalutara Co., Limited] specify 40,000 pounds next year as against 30,000 this year, and Ribu Rubber Co., Limited, 40,000 pounds against 20,000.

The Udabage Tea and Rubber Co., who expect to produce 3,000 pounds of first class rubber during the latter half of this year have contracted to sell at 4.05 rupees [= $1.31.4 gold per pound], while they have contracted to supply up to 12,000 pounds next year at $1.20.

Current prices for rubber at Colombo are materially higher than mentioned in the contract agreements. A considerable quantity was sold for the Kalutara Rubber Co., Limited, on June 3, at 4 rupees [= $1.29.8 per pound]—the highest price touched locally for a long time. The *Ceylon Observer* of June 10 reported: "The price of rubber locally has advanced steadily and sales of best quality at 4.15 rupees [= $1.34.6] are now reported. There is also a great demand for 1910 crops at 3.70 rupees (from America, a large part of it); so the manufacturers' anticipation evidently is that rubber prices are to be fairly well maintained for a good many months to come." The highest price ever obtained for plantation rubber in Colombo was 5.17 rupees [= $1.67.7]; but that was a "fancy" price for a small sample lot, and not an ordinary commercial sale. The high water mark of the Colombo market in 1907 was 3.80 rupees [= $1.24] per pound, and in 1908 3.90 rupees [= $1.26.5] per pound.

A plantation manager in Malaya, interviewed by *The Ceylon Observer*, does not anticipate a very great increase in plantation rubber production before 1914, though of course there will be the yearly increase, "but in that year the advance in the supply is likely to come in the shape of a burst. It need not, however, necessarily send the prices down with a rush, because on that we hope that the consumption will have largely increased while the supply of wild rubber will probably not have increased to anything approaching the same extent."

"WHAT BECOMES OF THE RUBBERS?"

THIS question was discussed incidentally by the "Lasterville Boot and Shoe Club," as reported exclusively for the *Boot and Shoe Recorder*. Mr. Willie Fitem, having gained the floor, said:

"What becomes of the rubbers?

"Ten per cent of 'em are worn out by tight wads that come in only when their rubbers get to be cisterns, they have wet feet, and after you have sold them they insist on having the old ones done up 'for use when it isn't wet,' instead of contributing them to the clerks' old rubber box.

"Ten per cent are lost. Left at the social. Exchanged with a fellow who got out earlier and had first pick at the banquet. Stuck in the mud while running for the car, and the like.

"Ten per cent are placed on a hot stove by the wearer and destroyed. I mean, placed there while wearer is warming feet.

"Ten per cent are bought too small, or worn over shoes larger than those over which they were fitted, and the toe of the shoes projecting over the sole of the rubber wears a hole quickly, or the shoes being too wide makes the sharp edge of the leather shoe stretch the side of the rubber out over the sole and thus cut it out, or a flat shoe is put in a French heel rubber, won't go to the bottom, makes a sort of accordion of the rubber heel and quickly wears it out.

"Ten per cent are loaned to somebody who is calling and are never brought back, and 60 per cent. are put away in a dark closet where owner can't find them, are overlooked, forgotten, and when they are dragged out a year or so later are spoiled by rubber decay.

"Ten per cent are—"

The Chair.—Hold on, Willie, you've got 110 per cent now.

Willie.—All right then, I'll quit. I must have got mixed up on my additions, I—

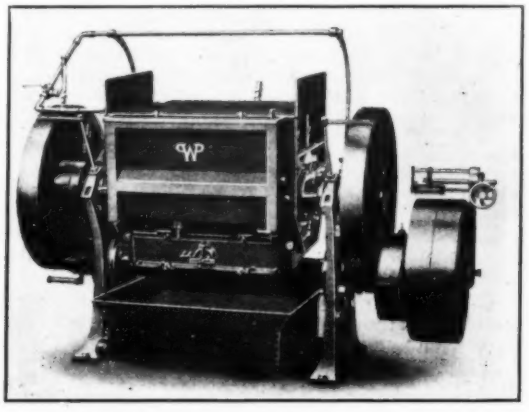
EXPORTS of india-rubber from Ciudad Bolivar, Venezuela, do not increase. They amounted to 258,404 kilograms in 1906 and only 179,234 in 1907.

The India Rubber Trade in Great Britain.

By Our Regular Correspondent.

THE Universal washing machine, patented and manufactured by Messrs. Werner, Pfleiderer & Perkins, Limited, engineers of Peterborough, England,* seems destined to effect a revolution in the washing rooms of rubber works. By the courtesy of the management of one of our large rubber factories I recently had the opportunity of seeing the machine at work, both in Pará rubber and Assare scrap. Speaking generally, the machine kneads the rubber between two deeply grooved rollers set about one inch apart, the action being rather like that of a masticator. Water, hot or cold, flows on the rubber from a perforated pipe, and is run off at the bottom of the machine with the sand and dirt, either continuously or at intervals. Where much wood is present, as in the case of Assare scrap, this is floated off by filling up with water, which takes the wood with it over the sides of the vessel which encloses the rolls. There are two main points about the new machine as regards its superiority over the ordinary washing rolls: these are saving of time and labor and the production of a rubber of superior strength. With regard to the first point, this is perhaps more marked in the case of inferior rubber than with Pará, from which so little impurity has to be removed. A batch of about 100 pounds of fine rubber was washed in 20 minutes, and a similar quantity of very woody Assare scrap in 40 minutes, the latter representing a very great saving of time and labor. Moreover, the rubber is capable of being sheeted much more easily than where ordinary rolls are used. Rubber as it comes from the machine is in the lump form and requires sheeting on the rolls before going to the drying chambers, so that the adoption of this machine does not mean the scrapping of all the present plant of the washing department. Turning to the quality of the washed rubber, I do not know what the patentees of the machine claim in this direction, and I have had no opportunity of forming a reliable opinion of my own. The manager, however, of the works I visited was emphatic that washing by the new process improved the strength of the rubber about 20 per cent. If this opinion is generally upheld it is of course a matter of considerable importance. No doubt the decreased period of time during which the rubber is under treatment and the alteration in the incidence of the stresses to which it is subjected are responsible for the improvement in the strength, and we would therefore expect the improvement to be more pronounced with the low grade dirty rubber than in the case of Pará. In these days of increasing unemployment it is not altogether satisfactory to find that the new machine effects a reduction in the labor bill, though those who are business men pure and simple will doubtless look at the matter in a different light. So far only one or two of these machines have been installed, but I hear of several which are on order for rubber works of importance.

NEW RUBBER WASHING MACHINE.



*UNIVERSAL RUBBER WASHER.
[Made by Werner, Pfleiderer & Perkins, Limited, Peterborough, England.]

IN connection with a certain process for removing cab tires, to which I recently referred, it has been pointed out to me that the matter has lost a good deal of its importance because the cab tire is doomed, owing to the competition of the taxicab. Whatever the future, near or remote, may bring in its train, the cab tire is by no means extinct yet, nor is the trade in it in a moribund condition. With regard to its origin it may not be generally known that it was first made and applied by the Earl of Shrewsbury, who started a small works at Weston under the management of Mr. William Oliver, who had been with Messrs. Charles Macintosh & Co., Limited. This was about 25 years ago. The name of Shrewsbury has since been well known in connection with the Shrewsbury-Challiner Wheel and Tire Co., of Ardwick, Manchester.

THE CAB TIRE.

THE fact that this domestic accessory has been described in the French Chamber as murderous, and that a bill for the abolition of its sale in France has passed its first reading, will not be received altogether with complacency by the few manufacturers in England who have hitherto done a considerable business with the article in France. It has certainly taken some time to arrive at the point of prohibition, though I believe the medical profession in other countries besides France have long condemned it from a hygienic point of view. I have no qualification to speak on nursery topics, but I presume there must be some alternative device. This is, of course, one of those cases where a liberal application of carbolic acid or other germicide would hardly be applicable. To judge by our slow progress in emulating other nations in legislation against food antiseptics, it will be some time before the use of this tubing is illegal in England.

FEEDING BOTTLE TUBING.

WHETHER there is any real foundation for the statement or not, I am unable to express any opinion of value, but it is said that the recent steady advance is due to market manipulation by interested parties far more than to legitimate trade demand. It certainly seems curious that while nearly all raw materials have been on the down grade for some time, rubber should continue to rise. It is not, however, quite alone in this respect, I may point out, because leather has followed the same course. Of course the higher the price of the raw rubber the more inducement there is for the public to invest in new plantations, and those which have been brought out in the last few months have certainly gone off very well. The same complaint of market manipulation has been made on previous occasions, as many will remember, and it generally brings a disclaimer that any such action is impossible. Although trade generally, especially in the textile industries, remains bad, this need not affect the demand for tires, and the extent to which the taxicab is now being utilized in Great Britain may easily account for an increased demand for rubber. Another comparatively new and rapidly developing use is for rubber tiling, now so much in evidence in steamships. With regard to the price of manufactured goods, it was only to be expected that this would be

HIGH PRICE OF RUBBER.

raised, and on June 21 a circular letter was sent out from the office of the India Rubber Manufacturers' Association, in Manchester, stating that the members are compelled from that date to make a minimum advance of 10 per cent., owing to the rise in cost of raw materials and of manufacturing expenses. The customary procedure in announcing this is for the members of the Association to send to their own customers the printed letter of the Association, with their own name stamped on it in large type.

ELECTRIC CABLES—AN EVENTUALITY.

THE great fall in the price of aluminum, owing to its production electrolytically, has proved rather disastrous to those interested in its manufacture. Electricians, however, are the reverse of despondent at the present price of £60 per ton, as they say that a slight further reduction will enable them to use aluminum instead of copper, if the latter rises above £70 per ton. To avoid the use of technical electrical terms, I may say that aluminum is not quite so good as copper for cable purposes and that rather more of it must be used. As far as I am aware no complaint has ever been brought against aluminum as having any injurious effect upon rubber, and the expense of the turning process which has to be applied in the case of copper wires will be obviated. In all probability the ordinary rubber insulation as used for copper wires would be modified in the case of aluminum, and anyhow it may be expected to last longer in many cases, because, despite the coating with tin, copper sulphide is commonly found in the rubber next the wires, and this certainly has an injurious effect upon the efficiency of the insulation.

CARBON TETRACHLORIDE.

THE price of this solvent, though much reduced from that of a few years ago, is still very high, compared with coal tar, naphtha, petroleum spirit, or shale spirit, and as far as the rubber trade is concerned, it is only used in small quantities, and mainly by those who are desirous of avoiding the fire risks associated with the hydrocarbon solvents. With regard to the future, it seems a safe surmise that the price will come down further. Owing to the various chemical manufactures in which the electrolysis of common salt or other chlorides is the main feature, there is an increasing amount of chlorine being produced, for which it is difficult to find a market. It cannot all be absorbed in the production of bleaching powder, and efforts are being made to increase the use of chlorine solvents as a way out of difficulty. In the United States carbon tetrachloride is now being made from chlorine produced electrolytically. The chlorine reacts upon bisulphide of carbon with the formation of carbon tetrachloride and a chloride of sulphur. The latter, I am informed, finds an application in the waterproofing of boots, though I imagine that it must be used in conjunction with some other material.

THE BUDGET AND PETROL.

SINCE my former reference to this topic it has been officially announced that petrol means any spirit, whether derived from petroleum oil, shale or coal tar, which is used in motor cars. The hopes of the petrol substitute purveyors have therefore soon been dashed. In a recent conversation with a tar distiller I had some figures given me relating to the use of benzol in motor cars. Their purport was that benzol had been proved not only to be equal to petrol, but to be 25 per cent. superior. Benzol has been sold wholesale recently at as low a price as 4½ pence per gallon, solvent naphtha, by the way, also being quoted at a considerably reduced figure for contracts placed at the present time. My informant was strongly of opinion that benzol would soon come to be generally used as a motor spirit, and that in say two years from now rubber manufacturers who use benzol must not expect quotations at anything like those ruling at the present time. The main fact which operates against the increased use of benzol at the present time is that there are no regular distribution centers, as in the case of petrol. A motorist knows that he can obtain petrol at numerous places on the route of any particular journey, whereas, if he started with benzol and ran short he could not depend upon getting further supplies. This present difficulty far outweighs the saving of a few pence per gallon, and until its distribution is adequately provided for we are not likely to see any great increase in its use.

PERSONAL MENTION.

IT is with much regret that I mention the recent death of Mr. Arthur Carlton at Hanau, Germany. It is some time since I met the deceased, who has been for some time at the Hanau works of the Dunlop Pneumatic Tyre Co., G. m. b. H. Some twenty years ago Mr. Carlton entered the clerical department at Messrs. Charles Macintosh & Co.'s works, and went out to Barcelona, Spain, to look after a branch they had there at the time. On returning he occupied other posts in the manufacturing departments at the Cambridge street works, and then went to the Dunlop Rubber Works at Birmingham. Subsequently he joined Dr. H. Schumacher at the works he had for three years at Deptford, and when these closed down he went to the Dunlop works at Hanau. Shock following the amputation of a leg which he had injured was the primary cause of death.

Mr. William Coulter has left the Harburg-Vienna works at Wimpassing, Austria, and has taken up a position at the Hungarian Rubber Works, Budapest. A few years ago Mr. Coulter left England to start the elastic thread department at the "Prowodnik" wroks of the Russian-French India-Rubber Co., at Riga, but returned home when work was temporarily stopped by the sanguinary riots. As he remarked to me, it was unsatisfactory sitting in a vulcan pan when the works were being shelled from the street. Mr. Coulter has had other Continental experiences since he vacated his position of manager of the proofing department at Messrs. Charles Macintosh & Co.'s some fifteen years ago.

Mr. John Gomersall, who retired a few years ago from Messrs. Francis Shaw & Co.'s rubber machinery works, and has been acting as a consulting engineer, has been specially retained by the Irwell and Eastern Rubber Co., Limited, as engineer, and the new plant which has been put up at Ordsall lane has been under his supervision. This plant, which has been rendered necessary by the extension of the firm's balata belting business, is run by electricity obtained from the town mains. A great convenience associated with electric power is in connection with night work.

INDIA-RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of value of exports of manufactures of india-rubber and gutta-percha for the month of May, 1909, and the first eleven months of five fiscal years, beginning July 1:

MONTHS.	Belting, Packing and Hose.	Boots and Shoes.	All Other Rubber.	TOTAL.
May, 1909	$145,704	$69,202	$303,849	$518,755
July-April	1,225,882	1,139,271	3,165,096	5,530,249
Total	$1,371,586	$1,208,473	$3,468,945	$6,049,004
Total, 1907-08 .	1,225,618	1,486,959	3,443,465	6,156,042
Total, 1906-07 .	1,135,116	1,082,003	3,358,459	5,575,578
Total, 1905-06 .	1,119,010	1,425,324	2,685,511	5,229,845
Total, 1904-05 .	892,232	1,135,610	2,327,757	4,355,599

The exports for the current fiscal year compare with the corresponding eleven months in the preceding year as follows:

Decrease in boots and shoes		$278,486
Increase in belting, etc.	$145,968	
Increase in miscellaneous	25,480	171,448
Net increase		$107,038

* * *

AN importation of diving dresses at New York was held dutiable as manufactures in chief value of india-rubber.

India-Rubber in North America---A Bird's Eye View.

*By Henry C. Pearson.**

CRUDE india-rubber and rubber-like gums to the amount of probably 170,000,000 pounds annually are used in the world's manufacture of rubber goods. Of this amount about 90,000,000 pounds, or more than one-half, are used by manufacturers in the United States and Canada. This in turn comes into the market in the form of finished goods of an estimated weight of 600,000,000 pounds. At first blush, when one remembers that the shrinkage of the raw product would amount to at least thirty-three per cent., this increase would not seem possible. It is, however, easily explainable when the uses to which rubber is put are considered, and its wonderful compounding and amalgamating principles are appreciated.

It is only rarely that the arts and industries call for much of resilience in rubber goods. The demand is for plasticity, for waterproof, airproof, oilproof, acidproof and wearproof qualities, all of which can be added through compounding. The compounding additions are reclaimed rubber waste, the annual consumption of which amounts to 124,000,000 pounds; of plastics, such as mineral rubber, 10,000,000 pounds, and so on. These added to crude rubber wonderfully increase its bulk and decrease its first cost, which otherwise would be prohibitive for many lines of goods. The next step in compounding is the addition of various metallic oxides, earths, and dry compounding materials, sometimes designed merely as cheapeners, but more often to bring out some quality essential to the line of product desired, powdered asbestos or infusorial earth, for example, being added as a heat resistant. Ingredients of this type amount to 200,000,000 pounds.

The third step in this compounding may be seen in the spreading of rubber upon fabrics. In many lines of goods the fabric weighs more than the rubber compound itself, as, for example, in rubber belting, and it may be figured roughly that the rubber trade uses 150,000,000 pounds of fabrics, this being chiefly in the lines of mechanical rubber goods, including footwear, tires and clothing.

Add to this the metals that go to make up certain goods, notably copper in insulated wire, and 600,000,000 pounds is a very conservative figure for a gross weight.

In their primary processes the various lines of rubber manufacture are almost identical in practice; that is in the washing and drying of the crude rubber and in mixing and forcing the compound into sheets for making up. Beyond that the business divides itself into wholly distinct industries that have their own lines of compounding, making up and vulcanization. These lines in the order of their importance are: Mechanical rubber goods, embracing belting, hose, packing and a great variety of specialties for engineering and industrial men; rubber footwear; tires, pneumatic and solid; insulated wire and insulating compounds; druggists' and stationers' sundries; waterproof fabrics, clothing and carriage cloth; hard rubber or vulcanite; dental and stamp rubber; rubber cements; sporting goods, including toys and golf balls; notions and specialties, such as dress shields, plasters, etc. Closely connected with all of these is the manufacture of reclaimed rubber from all kinds of rubber waste.

American practice has been, as a rule, to concentrate on special lines, rather than for any one factory to attempt to make all these lines. There are, however, some factories making two, three, or more of the above lines. The number of plants making rubber goods is about 260. Individualizing the lines, that is, in cases where a factory makes, say three lines, reckoning each as three factories, there are 340. There are employed in these factories about 50,000 workers.

There is another class of small rubber manufacturer represented by those who buy unvulcanized gum and make, for example, rubber stamps. To this class belong the dentists, the small turners of hard rubber, and the tire repair man. One's first thought would be that these lines would be so small as to be hardly worth mentioning, but taking the rubber stamp business for example, there are 14,000 that have an investment in vulcanizers of at least $100 each, or $1,400,000; 30,000 dentists with an investment of $50 each, or $15,000; 1,000 tire repair men, with an investment of $500 each, or $500,000. As nearly as can be estimated the above lines represent about 12,000 men employed constantly in rubber work.

The distribution of the general lines catalogued above is done chiefly through branches and agencies established by rubber manufacturers and to an even larger extent through wholesale hardware, plumbing and mill supply houses, footwear jobbers and electrical supply houses. This gives employment to what may be expressed by the equivalent of 10,000 men.

There also centers about the rubber trade a number of industries that act as feeders to it. There are, for example, 100 machinery manufacturers which to a greater or lesser degree supply the trade. There are 40 to 50 producers of fabrics which make either the whole or a part of their cloth for rubber use and about 100 producers of compounding ingredients, such as sulphur, whiting, litharge, and the like. It will be seen, therefore, that in summarizing the business as a whole or the number of employés, all of these should be considered. The figures, of course, are only approximate, but it would be safe to assume that the rubber trade in North America employs 100,000 men, and that the capital actually employed is close to $150,000,000.

Then, too, there are two interesting developments in crude rubber. One is the American investment of something like $20,000,000 in rubber plantations in Mexico and Central America. The other is the equally interesting development of rubber from the guayule plant (*Parthenium argentatum*) in the uplands of Mexico, where there is American money invested to the amount of about $30,000,000.

Rubber compounding practice is about the same the world over to-day. The Americans, however, have gone further in reclaiming and successfully using rubber waste than have the rest of the world. It is only a short time ago that quantities of rubber waste were used as fuel or thrown away. Then came the so-called mechanical process, where the waste was finally ground, the fiber blown out by an air blast, and the product formed into a pasty sheet through the so-called process of devulcanization. Later developments were various acid processes for destroying the fiber. Then came the alkali processes, the most notable of which was the Marks process, in which alkaline solutions of varying strengths are employed for destroying the fiber and also for removing free sulphur. By means of these varying processes every pound of rubber waste in the Americas to-day has a market value. Not only that, but the waste is turned into a plastic rubber compound nearly as good in every respect as the same compound was before vulcanization.

Another line of work that was in its beginnings wholly American was the treatment of such perishable gums as gutta-jelutong, or Pontianak. This, as a rule, is treated simply to keep it from oxidizing and to bring out its plastic and adhesive qualities. Some manufacturers, however, have gone further and by deresinisation have been able to secure a percentage of good rubber from it. A

*A paper presented at the Seventh International Congress of Applied Chemistry, in Albert Hall, London, on May 27.

number of the manufacturing plants have installed apparatus for the extraction of resins and the recovery of the solvents used, and have been successful in treating not only the gum named, but a great variety of medium and lower grade rubbers that carry large percentages of resin.

Although not a large business in the aggregate, it might be well to mention what the American manufacturers have done in the line ginerally known as dipped goods. By means of automatic machinery, new solvents and special compounding, together with a careful study and adaptation of the Parkes cold curing process, dipped goods, acid cured, have become a staple product.

The last ten years have seen a very notable change in the attitude of American rubber manufacturers toward the so-called rubber chemist. Where he was scoffed at or barely tolerated by the practical man a decade ago, he is to-day a valued and respected member of the general staff. All of the great factories have well-equipped laboratories with educated chemists in charge.

Of new developments in rubber manufacture there is no other that compares with the manufacture of automobile tires. It is really a new industry, increasing greatly from year to year. This year's estimate of $20,000,000 is likely to be increased by one-half for another year. Indeed, it is probably in a short time the leading line of rubber manufacturer will be pneumatic tires.

In spite of the fact that American newspapers regularly discover "synthetic" rubber with never-failing enthusiasm, and investors buy synthetic rubber stocks, this grade of gum has not yet assumed statistical importance.

RUBBER SUBSTITUTES AND PLASTICS.

OF all substances in the three kingdoms of nature there has been found nothing which has the physical properties of india-rubber to an extent which will allow of its substitution for it in making a high quality of goods, but owing to its high price nearly every substance found in nature or manufactured has been tried alone or mixed with rubber in greater or less proportion. The substance which has been found to most closely resemble rubber in an artificial product is composed of an oil of vegetable or animal nature which contains an unsaturated fatty acid. These oils have what are known as drying properties; that is, they absorb oxygen from the air and become hard. This property makes them valuable for use in paints, and the best paint oils make the best rubber substitutes. In making the best-known substitutes the oil is sometimes previously "blown;" that is, it is highly heated and air is then blown through it. This has a tendency to stiffen it and make it more "drying" and renders it possible to use less sulphur or sulphur chloride to make the substitute, but it is not usually considered that as good a substitute can be made that way. If the white substitute is to be made sulphur chloride is used, but if dark substitute is required, then free sulphur is mixed, and the oil is highly heated till it hardens up to the proper consistency, or rather will harden on cooling. This product is probably the nearest substitute to india-rubber that can be made.

It has been made from all the drying oils, and particularly from corn oil, which is not a first-class drying oil, and from cotton-seed oil and from oleic acid, which does not dry at all, but probably the value of oils for making substitutes bears direct relation to their value for paints. Of these oils linseed is usually considered the best, but the Chinese wood oil or "tung" oil has greater drying properties, and further has the remarkable property of hardening to a jelly when heated to 400° F. This jelly is insoluble in all ordinary solvents. This property does not seem to have been taken advantage of as yet.

In addition to the large number of bodies made in a general way as above, and having their value from the properties of a sulphonated oil, a large number of so-called substitutes have been used, although they are hardly more than fillers or adulterants.

Of considerable importance are the plastics. These are of several varieties, of which pyroxylin is important. If cotton or other form of cellulose be treated with nitric acid and a dehydrating agent like sulphuric acid, and the treatment is continued for different lengths of time, and with different proportions of chemicals and the other conditions of manufacture are varied, a number of varied products will be formed where the products which are the least nitrated are more soluble than others resulting from longer treatment. The strongest treatment produces guncotton, but a weaker treatment produces pyroxylin, which is soluble, and when mixed with solvents and camphor, the camphor is absorbed, forming the common product known as celluloid, which is one of the most useful plastics. It is not stretchable, however, although in the scientific sense it is elastic. That is, if bent it returns to its original form. This product forms the basis of another class of substitutes and is mixed with rubber in all proportions.

Cellulose products form another class of plastics. Cellulose, which is the basis of most vegetable fiber, can be made into the colloidal form by several processes and by forming several chemical compounds with it. Of course, the pyroxylin previously mentioned is a cellulose product, but another plastic or a colloidal form of cellulose is known as viscose, or rather its water solution is so known. If a strong alkali is boiled with cellulose and then carbon bisulphide is added, a solution with water is formed. This watery solution is known as viscose and on drying the cellulose is in colloidal form. Viscose has been the subject of much chemical and other experimental work, and large amounts of capital have been invested in the manufacture of fibers from it to produce artificial silk, but it has not yet largely come into use. It is, however, a plastic with a promising future.

Another class of substitutes have glue as a basis. Glue or gelatine has the property of being hardened and rendered waterproof by chromic acid or acid chromates or bichromates. This substance or the mixtures which produce this substance form another extensive class of substitutes which are the basis of many patents. Formaldehyde has the same properties of hardening glue and this produces a somewhat similar plastic.

Another plastic consists of casein or that part of milk which forms cheese. Casein has the bad feature that there is no way to free it entirely from water in the process of manufacture, and when this finally dries out after long use the product develops cracks and becomes brittle.

Of the tars, asphalts, pitches and mineral waxes there is a large number which have been proposed in all forms and in all quantities, but these should be regarded more as compounding agents than as substitutes. Of the other classes it is not worth while to classify them as substitutes, but they are either compounding ingredients, which are useful as imparting to rubber properties it does not possess of itself, or they are pure adulterants.

H. O. CHUTE.

New York, July 9, 1909.

WILL RUBBER GO TO $2.70?

A HANDY little book of "Parity Tables" of crude rubber prices brought out by a friend in the trade a few years ago proved of great convenience in THE INDIA RUBBER WORLD offices —as for instance in comparing quotations in shillings per pound with francs per kilogram. The book proved less helpful, however, when the price of fine Pará went above the limit for which its computations had been made—*i. e.*, 5 shillings 6 pence [=$1.33.8] per pound. Then a similar book, from another source, was helpful for a while longer, having been computed for prices up to 6 shillings [=$1.46]. But even this has become a "back number," and we welcome a comparative sheet got out by the *Gummi-Zeitung*, in which the figures run up to 25 marks per kilogram [=$2.70 per pound]. It is, of course, not intimated by the compiler that this limit will be reached, but there are persons in the trade who would not be surprised if it were.

The Late Robert D. Evans.

WHILE the late Robert D. Evans, of Boston, had not been actively interested in the rubber industry for a dozen years, his relation to it for more than half his life was so important and so extensive as to call for a record at length in a journal devoted to the trade, now that the time has come for writing the story of his life. As a result of being thrown from his horse at his summer home at Beverly, Massachusetts, Mr. Evans was taken to the Massachusetts Homeopathic Hospital, where he died on the evening of July 6.

Robert Dawson Evans was born September 30, 1845, in Boston, to which city his family had removed from St. John, New Brunswick. After having been graduated from the English High School he found employment as a clerk for the Hall Rubber Co., in Boston, of which Henry A. Hall was the proprietor. At that time Charles M. Clapp, further to be mentioned here, was the bookkeeper in that house. When the civil war came on, young Evans enlisted in the Thirteenth Massachusetts Volunteers, which joined the Army of the Potomac. He was twice wounded in service. After the war Mr. Evans went into the employ of Mr. Clapp, who had become a rubber manufacturer, operating the Aetna Rubber Mills, at Jamaica Plain. In 1870 he and Levi Ladd became partners in the firm Clapp, Evans & Co., which continued to operate the Aetna mills.

THE LATE ROBERT DAWSON EVANS.

Mr. Evans left the firm in 1872 and formed the Eagle Rubber Co., which established a small factory. Associated with him was George H. Hood, who left in 1878 to form the Boston Rubber Co., and Henry W. Burr, who was superintendent and later went in a similar position with the Para Rubber Shoe Co. Mr. Burr had been some time at the Aetna mills. The story is that Mr. Evans had become the principal owner of the Moulton patent on wringer rolls, which was strongly attacked by parties in New York, and that Mr. Clapp, fearing that the patent could not be sustained, was averse to helping to support it. The Eagle Rubber Co., therefore, was organized to carry on the manufacture of wringer rolls, the patent litigation over which ended in favor of Mr. Evans.

In 1873 the American Rubber Co. was organized, by Mr. Evans, strictly as a jobbing concern, selling the products of the Eagle company and taking the agency for the Meyer Rubber Co., footwear manufacturers. The two companies were consolidated and in 1877 a large factory was established at Cambridgeport and the manufacture taken on of rubber footwear and mackintoshes. This factory was burned in December, 1881, and Mr. Evans demonstrated perhaps more strikingly than at any time before his capacity to overcome difficulties, by the prompt rebuilding of the factory and the resumption of business.

When the United States Rubber Co. was organized, through consolidating a dozen factories, the American Rubber Co. was one of the most important concerns embraced. Starting with $200,000 capital, the American company had acquired capital and surplus amounting to $3,500,000, and its productive capacity was rated at $3,500,000 a year. The United States Rubber Co. was distinguished by being the largest industrial corporation that had then been formed in America. Its authorized capital was $50,000,000 and the original issue $26,947,000. Although the companies combined under its charter were older than the American Rubber Co., and most of them headed by men who had longer been in the industry, Mr. Evans was the unanimous choice for the office of president, to which he was elected October 15, 1892. In addition to filling this office, his position in the corporation was that of director of the purchase of raw material and manufacturing, just as Colonel Colt was legal director and Mr. Flint director of finance.

When it seemed desirable later to widen the scope of the United States Rubber Co., by further amalgamation of the trade, the presidency was offered to Joseph Banigan to gain his adhesion to the plan, and he filled the office for several years, resigning on March 4, 1896. Mr. Evans was at that time first vice president and general manager of the company and succeeded to the presidency, to which he was reëlected for a full term. All was not harmony in those days, and Mr. Evans declined reelection in 1897. On June 6, 1898, when he retired from the presidency of the American Rubber Co., which had retained its corporate existence meanwhile, and of which he had filled the head office for nineteen years, it became known that he had severed his connection with the rubber industry. It was common report that his large holdings in the United States Rubber Co. had been purchased by a syndicate headed by James R. Keene, whose successful disposal of the same was long an interesting story in Wall street.

The proceeds of Mr. Evans's rubber shares he invested successfully in mining stock, at first in copper. He was influential in the organization, in 1899, of the United States Mining Co., operating in Utah, of which he was at one time president. The company is now controlled through the ownership of the majority of its stock by the United States Smelting, Refining and Mining Co., organized in 1906 with $75,000,000 capital. Mr. Evans until just before his death was a director in each. He was currently reported a few months ago to have sold the larger part of his shares in the latter company for $4,650,000 in cash. Mr. Evans was one of the principals in the Yuba Consolidated Gold Mines Co., a gold dredging enterprise in California, organized by him and capitalized at $12,000,000. His dividends from this company are mentioned as having been $650,000 a year, and his income from the copper companies enough more to make a total of $1,000,000 a year.

Mr. Evans was interested in other companies than those named, including the Boston-Bolivia Rubber Co., engaged in forest rubber exploitation in South America, and in a rubber planting enterprise in Mexico. Since the filing of his will for probate, at Salem, Massachusetts, his estate, left wholly to his widow, has been estimated at $12,000,000.

Mr. Evans was a resident of Boston except while holding the office of president of the United States Rubber Co. On removing to New York for the first time he sold his house on Beacon street, Boston, to Mr. Elisha S. Converse. Later he owned a notable residence at No. 17 Gloucester street, corner of Commonwealth avenue, in which he formed a collection

of works of art which is regarded as one of the best in the country. His interest in art led to his election in June, 1907, as a trustee of the Boston Museum of Fine Arts. By way of recreation Mr. Evans was interested also in yachting and horsemanship, and he was a member of a number of clubs.

This item will be found in THE INDIA RUBBER WORLD, June 15, 1890 (page 201): "R. D. Evans, president of the American Rubber Co., has purchased a summer residence at Beverly, Massachusetts." From that time Beverly was the summer home of Mr. Evans and his family. The estate there was greatly improved by him and became one of the finest on the Massachusetts coast. To his home he gave the name Dawson Hall. Later he purchased the neighboring Stetson estate on which is the cottage illustrated in THE INDIA RUBBER WORLD, June 1, 1909 (page 314), as having been leased from Mr. Evans as the summer home of the President of the United States. It was while riding through a bit of woods attached, with a view to getting the place in readiness for President Taft, that Mr. Evans met with the accident which proved fatal.

Mr. Evans married Marie Antoinette, a daughter of David Hunt, once prominent in the rubber footwear trade. At one time Mr. Hunt was a partner of Elisha S. Converse, in Converse & Hunt, a firm organized as selling agent for all the rubber shoe factories. Later Mr. Hunt was selling agent for the Meyer Rubber Co., the connection with which Mr. Evans has been mentioned already. Mrs. Evans survives. Her mother and her two sisters, unmarried, have made their home with her for many years.

Funeral services were held at the late residence of Mr. Evans on July 9, conducted by the Rev. Charles Towne Billings, of the First Unitarian Church, of Lowell, Massachusetts. The interment in the family lot at Forest Hill Cemetery was private.

Mr. Evans was temperamentally a fighter. He was built for battle both physically and mentally. He was a much larger and heavier man than he appeared to be. Apparently he was a trifle over medium height, but really he stood over six feet, but was so proportioned and heavily muscled that he appeared short and smaller than he really was. It has often been remarked that it was a wonder that a man of his ability could have served in the ranks as a soldier and not risen to be at least a colonel. It was explained in part, however, by his impatience of restraint. Like a high-mettled horse, he fretted constantly under the curb and would not be broken. This same impatience and resentment at opposition was more or less present in his business life, but as he grew older he grew more lenient and more tolerant.

He was wonderfully sincere in his friendships and generous in his charities. Outside of business his great passion was his love of art. Indeed, he was a connoisseur of no mean ability, and his beautiful home in Boston had gathered many of the gems of old masters. He was always a striking figure and one of such pronounced individuality that he attracted attention in any circle.

A friend of Mr. Evans is quoted by a Boston paper as saying: "He was a direct descendant of Lord Dawson, at one time premier of England, and his beautiful Beverly estate was named Dawson Hall in honor of his ancestor. His art collection, which was his great pride, will probably go to the Museum of Fine Arts as an Evans memorial."

TRIBUTE OF THE NEW ENGLAND RUBBER CLUB.

DEATH having removed from our midst our friend and Honorary Vice President, ROBERT D. EVANS, we, a committee representing the New England Rubber Club, herewith record our profound grief through the medium of the following resolutions:

Resolved, That in the passing away of Robert D. Evans the rubber trade at large and the world of American business lose one who was a great and successful leader. Born in humble circumstances, with no aid other than a talent for organization and unflagging industry, he fought his way upward, overcoming obstacles that would have daunted a less courageous soul, until at middle life he was successful, rich, and free from business cares. In perfect health, with the promise of years of well earned enjoyment before him, an untimely accident closed a career that is woven into the fabric of the great industry with which his name is most intimately associated.

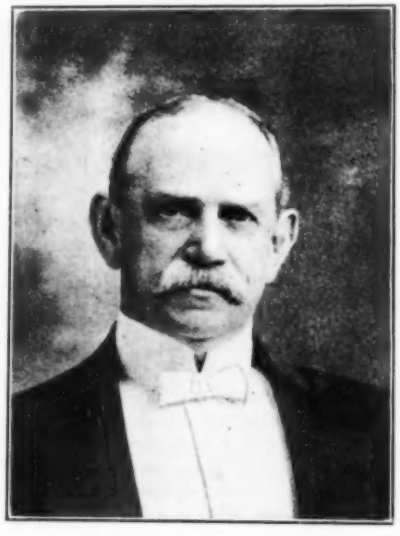
Resolved, That in his death we have lost one of the notable figures in our trade, and one of the most respected officers of our organization. Alert, aggressive, vital, full of the spirit of American progress, a firm friend, a discriminating yet enthusiastic patron of art, his place in our hearts and in our industry must long remain unfilled.

Resolved, That this brief tribute be spread upon our records, and a copy be engrossed and presented to his family, to whom we extend our profound sympathy.

G. P. WHITMORE,
E. E. WADBROOK,
A. M. PAUL,
Committee on Resolutions.

JOSEPH DAVOL.

JOSEPH DAVOL, president and treasurer of the Davol Rubber Co., and for a quarter of a century a prominent figure in the business and financial life of his home city, Providence, Rhode Island, passed peacefully away at his home, No. 48 Parkis avenue, on July 5. Death was caused by a complication of diseases directly affecting the heart, from which Mr. Davol had been



THE LATE JOSEPH DAVOL.

suffering for some time, but which only obliged him to cease active work four months before the date of his death.

He was born in Warren, Rhode Island, June 28, 1837, and had therefore just passed his seventy-second birthday. He was the son of Joseph Bowen and Mary Little (Saunders) Davol, both natives of Warren. He was educated in the public schools at Warren, and was graduated at an early age from the Warren High School. After completing his education at the Warren school he went to New York, where with his brother he became associated with one of the largest and best known wholesale dry goods houses in New York city in its day. While connected with this house Mr. Davol made his home in Brooklyn.

Possessed of remarkable business acumen for so young a man, Mr. Davol was one of the first to forsee the possibilities in the rubber manufacturing business, this being then in its infancy, and presenting a broad field for development. The opportunity presented itself in 1870, in which year Mr. Davol formed a partnership with Daniel C. Perkins, of Providence, and established a small factory on Point street, near the site of the present plant of the Davol Rubber Co. The business had only lis'ed

present plant of the Davol Rubber Co. The business had only become fairly started when Mr. Perkins withdrew, and soon afterward died, and Mr. Davol struck out alone. He kept at it alone until his sons were old enough to share in the business, steadily increasing the size of his plant, improving machinery, and making a name for himself and his product, which is now so widely known throughout the business world as the Davol Rubber Co.

Under his careful guidance the Davol Rubber Co. has grown to be the largest plant of its kind in the world, its product being sold in the markets of every civilized country, and the name "Davol" has come to be the standard of excellence in that line. Up to the time of his last illness, Mr. Davol maintained an active interest in the affairs of the company, of which he was president, treasurer and principal owner, the company's stock, with the exception of a very few shares, standing in his name and the names of members of his immediate family. This company as originally started having always remained a close corporation.

Mr. Davol married Mary Eliza Turner, of Providence, who survives him, as do also his two sons, Charles J. Davol, the general manager and one of the directors of the Davol Rubber Co., and George A. Davol, who is now living in Boston.

In the business life of the city, Mr. Davol was always an important factor. He was undoubtedly one of the most prominent among that passing generation of men who were pioneers in their work, and who gave the city the reputation and standing it has in the business world. He was also well known in the business and financial circles of Boston and New York. He was a director in the Industrial Trust Co., the Phenix National Bank and a member of the board of trustees of the Rhode Island Safe Deposit Co., and identified with many other corporations and institutions, both business and financial. He was a member of the Hope, the Art and the Squantum clubs, though he was seldom seen at either, because of his preference for the quietude of home life.

He was of a retiring nature, and cared little for public life, and many times declined attempts to bring him before the public eye. His charities were liberal and wide, and always unostentatious. A quiet, courteous, kindly and most lovable man was Joseph Davol. The false and insincere bored him exceedingly, but he showed it only by a look of weariness that was more eloquent than a spoken reproof. Some four days before his death, speaking to a close friend he said, "During my life I have not knowingly wronged anyone." That this was an honest claim, all of his friends and associates will testify, and more than all else this stands as the greatest and most enduring of his successes.

TRIBUTE OF THE NEW ENGLAND RUBBER CLUB.

WHEREAS: Our fellow member, director, and friend, JOSEPH DAVOL, has passed to the "Great Beyond" we, the New England Rubber Club, with sorrowful hearts, have framed the following resolutions:

Resolved, That in the death of our friend the rubber trade and our association have suffered a great and irreparable loss. Quiet, reserved, genuine, averse to publicity of any nature, he was yet a progressive, able business man, a sane and sound adviser, and one whose aim was to deal justly and generously with all with whom he came in contact.

Resolved, That this expression of our appreciation of the departed be spread upon our records and a copy be engrossed and presented to his family.

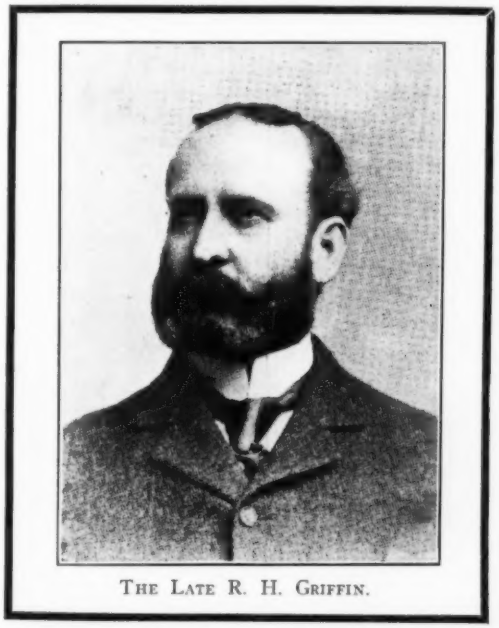
GEORGE P. WHITMORE,
E. E. WADBROOK,
A. M. PAUL,
Committee on Resolutions.

J. C. PIERREZ.

JESSE C. PIERREZ, of the rubber goods trade in New York, died suddenly of heart disease at his home in that city, No. 387 Convent avenue, on July 22, in his fifty-fifth year. Mr. Pierrez was born in Hoboken, New Jersey. For many years he was in the employ of the Goodyear Rubber Co., after which he engaged in business for himself. He was manager of the Peoples Hard Rubber Co. (Akron, Ohio), and after its absorption by the American Hard Rubber Co. he organized in New York the Pierrez Rubber and Supply Co., jobbers of rubber goods, incorporated October 10, 1904, of which he was the president to the end of his life, with offices at No. 69 Warren street. He leaves a widow, who was Miss Adeline R. Van Pelt, daughter of the late William R. Van Pelt, for many years superintendent of the New York postoffice.

R. H. GRIFFIN.

R. H. GRIFFIN, who died at his home in Philadelphia on June 28, in his sixty-ninth year, was a native of Baltimore. When quite a young man he removed with his father to Boston, and was associated with him there in the footwear trade. Later he became identified with the Boston selling agency of the New Jersey Rubber Shoe Co., then under the management of E. B. Preston. Next he was appointed New York selling agent of the same company—a position which he occupied when the New



THE LATE R. H. GRIFFIN.

Jersey company was merged into the United States Rubber Co. Mr. Griffin remained with the United States Rubber Co. for several years. When the New Jersey factory was converted into a bicycle tire plant he took charge of the sale of the new line of production, continuing so until 1900, when he took charge of the rubber department of Weimer, Wright & Watkin Co., large wholesalers of footwear in Philadelphia. This position he held to the end of his life. Mr. Griffin was a most capable salesman. He made friends naturally and easily and seldom an enemy.

JULES A. BELANGER.

JULES AMÉDÉE BELANGER, the head of Belanger's, Incorporated, died at his home in Bluefields, Nicaragua, on June 11, in his forty-fifth year, after having been in ill health for several months. Mr. Belanger, who was a native of Canada, went to Bluefields at an early age and became associated with an important mercantile house in which a relative was partner. He grew to be the head of the business, and became an eminently successful man of affairs. He was the founder of the banana industry in Nicaragua, was influential in developing the goldfields, and latterly took an active interest in rubber culture. He had been British vice consul since 1885. The honorary pallbearers included the local governor, the British consul, the American vice consul, and Mr. Gordon Waldron, of the local rubber planting interest. The death of Mr. Belanger was widely mourned in Bluefields. A fuller sketch and portrait of him appeared in THE INDIA RUBBER WORLD, March 1, 1906 (page 192).

Rubber Interests in Europe.

THE North British Rubber Co., Limited (Edinburgh), have decided to organize at Berlin an independent joint stock company, which is to operate in the German, Austro-Hungarian and Roumanian markets, not only in the line of rubber and canvas shoes, as hitherto, but likewise in rubber mechanical goods, automobile tires and the like. A circular issued by the North British company and the firm of Max Scherer & Co., of Berlin, announces that the latter has by mutual agreement resigned the agency of the said company. The new company, which is to have its main office in Berlin, will be under the management of Josef Scherer, who for many years has been associated with the firm of Max Scherer & Co., and of Alfred E. Baker, of Edinburgh. The firm of Max Scherer & Co., of Berlin and Vienna, will likewise continue in business, devoting itself henceforth exclusively to the sale of the products of the Helsingborger Gummifabriks Aktiebolag (Helsingborg Rubber Works Co.), of Helsingborg, Sweden, the said firm having had since 1896 the exclusive sale of these goods in Germany, Austria-Hungary and the Balkan countries.

The new business arrangement of the Edinburgh company will be carried out under the style North British Rubber Co., Aktiengesellschaft, Berlin-Wien. The Berlin office is Neue Friedrichstrasse 9-10.

REFERRING TO PROTECTION V. FREE TRADE.

A BERLIN dispatch to the London *Standard* states that the North British company have opened a large office in Berlin in place of their former agency, and will erect a factory there in order to avoid payment of the heavy import duties imposed to foster the German industry. It is stated that the North British company are in hope of competing not only with German manufacturers, but with the Russian rubber shoe trade in Germany, which continues large. The correspondent of *The Standard* comments as follows:

"This action on the part of the company is one more proof of the way in which the free trade government of England drives capital from the country and takes the bread out of the mouths of workmen of a country working under its old-fashioned, out-of-date methods, whilst a scientifically tariff protected country, as Germany is, not only attracts capital, but new industries, affording employment for its workmen. German manufacturers can export their products, with very few exceptions, into England duty free, hence they are quite content to work their factories in Germany, maintain a small office in London and other commercial centers throughout Great Britain, where their agents can reap a rich harvest of orders, with the result that they make hugh profits. English manufacturers wishing to do business in Germany, on the other hand, everywhere find themselves excluded by high tariff walls. If they really desire to do trade in Germany they find it imperative to set up their own factories within the German empire. This fact the Americans have long recognized, with the result that many American concerns have opened their own factories in this country."

FORTY YEARS WITH ONE RUBBER COMPANY.

THE recent celebration of the fortieth anniversary of the connection of Herr Jean Hagelsieb with the Vereinigte Berlin-Frankfurter Gummiwaren-Fabriken led to the publication of some details of interest relative to the history of this important company, which are summarized herewith. The original factory was established on a small scale, on the banks of the Spree in 1849 (just 60 years ago) by Mr. Elliott, an Englishman. The business underwent various changes before the organization of the Berliner Gummiwaren-Fabrik Actiengesellschaft, with 670,000 marks capital, December 18, 1883. Meanwhile a rubber factory at Frankfort o/M was reorganized (in 1870) and removed to Gelnhausen. In 1886, by which time the latter had come into possession of Wendt, Buchholz & Co., the two establishments were consolidated under the present style, Vereinigte Berlin-Frankfurter Gummiwaren-Fabriken. The original capitalization was 1,000,000 marks, which has been increased gradually to 3,500,000 marks [=$833,000], on which the yearly returns of late have been 9 per cent. Recent stock exchange quotations have been 139. When Herr Hagelsieb joined the staff of the Berlin factory, June 16, 1869, the latter was owned by C. Bolle. He has since been at the head of the office and financial department, through the various changes here outlined. Herr Hagelsieb is now in his sixty-eighth year, and bids fair to live to celebrate his golden jubilee with the company. Herr Emil Spannagel, often mentioned in THE INDIA RUBBER WORLD, has now been at the head of the Berlin-Frankfurter company for 16 years.

NORWAY—LABOR TROUBLES ENDED.

THE labor troubles from which the "Viking" Gummivarefabrik and the Aktieselskabet Norsk Galoche- og Gummivarefabrik in Mjöndalen, near Drammen, have suffered since November 14, 1908, and January 1, 1909, respectively, have now been settled by the signing of an agreement on the basis of a new scale of wages, which is to be in force until January 1, 1912. Work was resumed on June 14.

DENMARK—A SWEDISH BRANCH.

THE Aktieselskabet Helsingborgs Gummifabriks Aktiebolagets Udsalg ved John Prange has been registered at Copenhagen, with a capital of 30,000 kroner [=$8,040], fully paid. Under the firm name, John Prange & Co., hitherto has been conducted the exclusive sale in Copenhagen of the rubber footwear made by the works at Helsingborg, Sweden. The managers of the new branch are H. Chr. L. Dunker of Helsingborg, John Prange and W. J. Honum of Copenhagen.

THE "SILVERTOWN" COMPANY'S MEETING.

AT the half yearly meeting of the India Rubber, Gutta Percha and Telegraph Works Co., Limited (London, June 15), the chairman said that during the past six months there had been a considerable change in the market for raw material. In December last the price of fine Pará rubber was 5*s.* 0½*d.* per pound; now the quotations were about 6*s.* per pound, and the medium grades had also advanced in sympathy. To protect themselves the company, in common with the principal manufacturers, had advanced the selling prices of their general goods, and would doubtless have to advance the price of their special goods, as contracts fell in for renewal. It was unfortunate that the last quarter of their financial year should have this advance in selling prices to face, and it would to some extent diminish their sales during this period, and lessen the substantial percentage increase in their sales which they had experienced during the three-quarters just terminating. Their tire and tiling branches had been well maintained. The customary *interim* dividends were declared.

RUBBERIZED BALLOON FABRICS.

THE development of aërial navigation has led to great activity in the rubber industry in the production of rubberized fabrics for balloons, aëroplanes, and the like. Already THE INDIA RUBBER WORLD has mentioned at length the production of such fabrics by Continental Caoutchouc und Guttapercha-Compagnie, of Hanover. Three other German rubber factories may now be mentioned as having engaged in a practical way in making goods of this class: Etablissements Hutchinson, at Mannheim; Franz Clouth, Rheinsch Gummiwaren-Fabrik m. b. H., at Cologne; and Aktiengesellschaft Metzeler & Co., at Munich.

THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

WHEN a dealer in rubber goods commences to express his opinion with regard to business and financial conditions in San Francisco and on the coast during the past month he almost invariably says that conditions have been exceedingly bad. He says that business is dead, that there is no demand for anything and he wonders what can be the matter because he has never seen things so quiet in this territory. After thinking the matter over he tempers his remarks, saying that he has been doing something right along, but that business is not active and is far from what it should be. Again he is apt to say that it is just about what should be expected at this time of the year, or, that he expected dull times this summer, following the financial stringency through which the whole country has passed. He is apt to say that aside from a few retailers in certain mercantile lines who have moved down town in San Francisco where they are paying such high rents that they can hardly make ends meet, that nowhere on the coast is there anybody who is actually suffering, and all of the rubber dealers believe that the fall season will witness the commencement of an active healthy business. The present conditions are rather disagreeable and unpleasant than hard, because there is no great suffering and everybody can hold out until fall at least. What makes it hard to understand is that people should be so unprogressive and so unwilling to advance money for improvements and live business operations when all outside conditions including big crops, for which there is a healthy market, a growing and rapidly developing country, and a large commercial business seems so fully to warrant busier times. The tariff question interests Western people almost not at all, and they think that there is plenty of money here on the coast.

The Phoenix Rubber Co., one of the new firms in San Francisco, report that they have been rather busy during the past month, due largely to the tire business which they have been favored with. This firm has succeeded in gaining a firm foothold in the trade during stringent times, so that they are confident of making a good success when conditions get back to normal again. Mr. Ralph states that the tire business has been particularly active. The big lumber mills which have been closed down are showing some signs of activity now, some opening for active operations, which promises well for the mechanical goods trade.

Mr. Ralph pointed to the railroad development work going on here as showing the confidence which the big railroads have in the city. Seattle and Los Angeles have grown to be large cities, but there is room for big cities located as they are without interfering at all with the development of San Francisco. When the Panama canal is in operation this bay will be the center for a tremendous ocean traffic. The farmers through the state have had one of the most ideal and prosperous seasons. These are a few of the things, said Mr. Ralph, which will lead to a renewal of business confidence and activity.

The Bowers Rubber Works are about to establish a distributing warehouse in Los Angeles for the greater convenience of their customers in the southern part of the territory.

Mr. Joseph V. Selby, Pacific coast manager for the Boston Woven Hose and Rubber Co., states that he considers the outlook for fall business very favorable, in view of the bountiful crops and the satisfactory prices which the producers will receive.

The garage owners of Alameda county held a meeting lately for the purpose of aiding in the formation of the national organization of garage men who are organizing for the purpose of securing great concessions in the price of tires. The idea of the garage men is that if they get all of the garage people in all of the states to form a purchasing organization they will be able to import tires from Europe, and after paying the duty, still make the prices lower than now.

Mr. George Sweeney, of Eccles & Smith Co., and Mr. Henry Martine, manager of the Gutta Percha and Rubber Manufacturing Co., are among the Elks who attended the grand assemblage of Elks held in Los Angeles recently.

L. L. Torrey, manager for the Pennsylvania Rubber Co. in San Francisco, states that business continues to be good enough considering the times, and that collections are holding up fairly well.

Mr. Winslow, manager for the Pacific Coast Rubber Co., reports that business is just about what everybody had expected at this time of the year, and consequently were prepared for—that is, quiet.

THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

THE fact that manufacturers' profits were threatened by the unprecedented rise in the prices of crude rubber is advanced by Akron tire men as the reason for the advance in the prices of tires which went into effect with all of the principal tire companies on July 16. It was affected uniformly after several conferences in Akron and Cleveland between representatives of the various companies. The new consumers' prices are almost identical in the lists of the different manufacturers. The increase amounted to 15 per cent. in most cases, and more in others.

Tire manufacturers here are inclined to ascribe the rise in the crude rubber market in good part to the remarkable demand for mechanical rubber goods that has become apparent within the last few months. As compared with the slack conditions in this branch of the trade following the depression of last year, the present increase comes as a reaction. Factories are working with night forces to fill orders for hose, packing, and other mechanical goods used in various industries. This demand is looked upon as a sequence to the resumption of activity in factories in all branches of industry.

The B. F. Goodrich Co., with a view to future expansion of their factory, purchased recently a tract of four acres on Main street, adjoining the plant on the north. The land was bought from the Brewster Coal Co., and has 440 feet frontage on the street. Part of it extends to the canal in the rear. There is room on this land to increase the size of the Goodrich factory nearly 50 per cent.

Frank R. Tate, formerly of Akron, has resigned as manager of the St. Louis branch of The B. F. Goodrich Co., and will enter the automobile business. No successor has been appointed as yet, but the business of the branch is being conducted by the assistant manager, J. A. Peterson.

The B. F. Goodrich Co. have issued a convenient "Trip Record Book" for automobilists. It has spaces for records of time, autometer and speedometer readings, the conditions of roads, hotels, garages and experiences with tires. Opposite each record page is a blank page for memoranda.

Mr. Joseph W. Kelly, who resigned two years ago as a department manager in the B. F. Goodrich Co., returned on June 28, after living two years in Europe with his family. He will make his home here temporarily.

Mr. J. T. Hart, formerly with the La Crosse Rubber Mills (Lacrosse, Wisconsin), has been secured by The Diamond Rubber Co. to head the establishment and organization of the new boot and shoe factory. Mr. Hart had experience with a number of other rubber companies before he held a position in the Lacrosse company. Officers of the Diamond company are still unprepared to make any definite announcements regarding the details of the new factory, but expect to have the new goods on the market shortly after January 1. The new building has been under way some time.

The Diamond Rubber Co. are placing on the market an innovation in the form of a double tube motorcycle tire. Heretofore the company have made only single tube tires for this class of

vehicle. The new product is constructed on a design similar to that of a light automobile tire. It has deep corrugations on the tread to prevent side slipping. "The demand for motorcycle tires is growing rapidly," said an official of the company, "the auto shows last winter gave motorcycles more attention than ever before and during the coming season the shows will have regular divisions for their display."

A new product in The Diamond Rubber Co.'s line is an improved demountable rim. The improvements over the 1909 model consist of a change in the rim so that it can be fitted to the felloe of any automobile wheel of regulation construction, and the elimination of the mortised groove in the felloe to admit the valve stem.

The Diamond Rubber Co. will open a branch house in Atlanta, Georgia, on September 1, at No. 48 Auburn street. It will be in charge of Mr. Wiley West, who has heretofore represented the company in the South, traveling out of Mobile.

Mr. Ohio C. Barber, a director of The Diamond Rubber Co., sailed on July 14 for Europe, where he will spend the summer with his son-in-law and daughter, Dr. and Mrs. A. D. Bevan, of Chicago, touring by motor through various countries. This is Mr. Barber's forty-third trip to Europe. He intends to purchase a herd of cattle while on the continent to bring to his farm near Akron.

Trouble has been encountered by the city street department recently by the clogging of sewers in the vicinity of rubber factories with particles of rubber which leak through the sieves during the washing process. A serious overflow of the sewer which occurred in the Firestone plant, June 21, was traced to this cause.

Tire makers are awaiting action of the Motor and Accessories Manufacturers' Association before taking steps to be represented at the opening show of the season in Atlanta, Georgia, November 6-13. It is expected that the association will approve the show. It will be one of the large automobile events of the year.

Companies making solid tires in this city expect to be represented at the International Convention of Fire Chiefs in Grand Rapids, Michigan, August 17-20.

The Falls Rubber Co. recently organized in Cuyahoga Falls, Ohio, has purchased the rights of manufacture of a patent rubber horseshoe pad. A line of automobile tires will also be among the products of the new concern. H. A. Post, formerly of Buffalo and Denver, will be sales manager. On account of his removal to Toledo, J. N. Weid leaves active participation in the company and the officers have been changed to the following: Dr. S. H. Sturgeon, Akron, president; W. G. Short, Akron, vice-president; H. F. Siegrist, Akron, secretary and treasurer; William Sherbondy, Akron, superintendent. The offices will be located in Akron. The new plant in Cuyahoga Falls is under roof.

Salesmen traveling into Akron are interested to learn that the Akron Hotel Co. was organized in this city July 14 to build a $350,000 hotel here. The project is backed by the Chamber of Commerce, and business men expect to see construction started in 60 days.

The population of Akron is 70,354 according to a conservative estimate based on the count in the 1909 city directory published during the last month. This shows an increase of 7,000 during the last year, a large part of it due to the expansion of Akron rubber factories.

AMERICAN EXPOSITION IN BERLIN.

AN American exposition is to be held in Berlin during the months of April, May, and June, 1910, under the patronage of prominent citizens in Germany and the United States, with the idea of making it of permanent benefit to both nations. It is stated that it will enjoy the lively interest of the German emperor, as well as of many prominent persons in the empire. The American advisory committee embraces a number of representative business men in various branches. American headquarters have been opened at No. 50 Church street, New York, under the management of Mr. Max Vieweger.

RUBBER STAMPS FOR THE GOVERNMENT.

THE manufacturers of stamp rubber have issued new lists showing a marked advance in prices, due to the higher cost of crude rubber. On June 21 bids were opened for supplies for the United States postal service for the fiscal year beginning July 1, 1909, including an unusual number of rubber stamps. It appears that the prices at which contracts were awarded were the lowest in the history of the trade. The bids were made, it is true, before the announced advance in stamp rubber, but at a time when the cost of crude rubber had become much higher than twelve months before. The *Stamp Trade News* (Washington) criticises the policy of stamp makers in supplying government goods at prices which make profits impossible. It says that three years ago a New York firm which secured the rubber stamp contract at higher prices than those of the successful bidder this year, claimed to have lost heavily and declined thereafter to bid. The *News* says: "In days gone by it was worth the while for a contractor to bid at cost on some items for what they termed 'prestige,' but those days have passed, for there are no 'pickings' to be had any more. - - - Let it be hoped that after twelve months of grinding out stamps at no profit, wearing out their machinery and wasting their energy, government contractors by this time next year will get some sense knocked into their cocoanuts."

Two branches of the government service have equipped rubber stamp making outfits, presumably not with a view to saving money so much as to enable them to fill promptly orders for stamps for special work which may be speedily wanted. They are the office at Ogden, Utah, of the forest service of the department of agriculture, and the Isthmian Canal commission, at Panama.

A WIDER USE FOR RUBBER STAMPS.

A CIRCULAR issued from the United States treasury department under date of April 12 said:

"There having been a marked improvement in the stamps heretofore used and in the quality of the ink used on pads and ribbons since department circular 7 of January 20, 1900, was issued prohibiting the use of rubber stamps or the typewriter by United States disbursing officers in filling up checks, said circular is hereby revoked. The use of the rubber stamp and typewriter for said purpose is, therefore, hereby authorized, provided care is taken to insure perfect impressions in filling in the dates, amounts, and names of the payees on checks, and that only permanent ink be used on pads and ribbons."

On account of objections heard from financial institutions, a later circular was issued, providing that the above regulation be "modified so that the amounts of the checks and the names of the payees be filled in either with pen and ink or with the needle-point typewriter, which perforates the paper. The use of the ordinary typewriter for the purpose is hereby prohibited."

There is a suggestion in the Washington *Star* that persons whose signatures to letters are none too legible, might confer a favor upon their correspondents by affixing their names with a small rubber stamp underneath the written signature. An official in one of the government departments at Washington is mentioned as having adopted this method.

BOILING-DOWN POTS FOR RUBBER.—A newspaper of Cleveland, Ohio, in a report of the display made by a local rubber manufacturing company at the Industrial Exhibition in that city during the past month, paid special attention to the specimens of crude rubber as gathered in South America, which were included in the exhibit. The newspaper says: "Hundreds were attracted by the shoes made by the natives from the gum and molded to their feet while still hot from the boiling-down pots."

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED JUNE 1, 1909.

No. 923,205. Wheel for road vehicles. F. Shaw, Bishop Auckland, England.

923,224. Vulcanizing apparatus. W. H. Welch, assignor to H. Frost & Co., London, England.

923,279. Pneumatic tire. A. Latimer, London, England.

923,320. Hose reel. H. W. Blaisdell and G. P. Baldwin, Los Angeles, Cal.

923,322. Automobile tire protector. A. B. Boughan, Chicago.

923,379. Punching bag. S. H. Selfe, Corona, N. Y.

923,386. Sap collecting device. F. B. Turner, Ocala, Fla.

923,436. Resilient vehicle wheel. H. G. Mackinney, Providence, R. I.

923,456. Anti-slip device. W. M. Stevenson, Indian Orchard, Mass.

923,516. Resilient tire. N. H. Hassel, Los Angeles, Cal.

923,626. Elastic wire cable. T. W. Colleran, Toronto, Ontario, Canada.

923,643. Spring wheel. T. W. Gratz, Jr., Olean, N. Y.

923,707. Spring wheel. J. E. Rielly, Newark, N. J.

923,733. Puncture proof tire. E. J. C. Timerman, assignor of one-third to L. C. Crowell, both of Syracuse, N. Y.

923,772. Vulcanizing apparatus. A. F. Cogswell, Pretty Prairie, Kans., and J. W. Puckett, Geneva, Neb.

ISSUED JUNE 8, 1909.

923,896. Tire plug. R. Sampson, Montreal, Quebec, Canada.

924,087. Air brake piston. J. E. Meek, New York city, assignor to H. W. Johns-Manville Co.

924,101. Preparation or regeneration of rubber or caoutchouc. [Waste material is dissolved in eucalyptol, a volatile diluent is added, the undissolved matter separated, and the caoutchouc separated from the eucalyptol.] F. W. Passmore, London, England.

924,102. Pneumatic tire. F. H. Perry, Beverly, Mass.

924,106. Material for waterproof welts. J. R. Reynolds, assignor to the Waterproof Welt and Filler Co., all of Hartford, Conn.

924,117. Preparation of caoutchouc. [A process of preparing caoutchouc, comprising extraction of material containing the same with an oxygen derivative of a terpentine, said derivative having a melting point below 150°.] A. Tixier, assignor to Les Produits Chimique de Croissy J. Basler & Co.), all of Paris, France.

924,139. Vehicle wheel. F. Bradley and F. H. Fairchild, Detroit, Mich., assignor of one-third to C. C. Bradley, Mount Clemens, Mich.

924,166. Hose coupling. R. S. MacEwan, Troy, N. Y.

924,186. Tire casing. [Involves a strain resisting fabric.] J. F. Palmer, Chicago.

924,267. Tire casing. *Same.*

924,628. Tire casing. *Same.*

924,324. Elastic belt. W. Dalton, Buffalo, N. Y., assignor to C. Dalton, Limerick, Ireland.

923,334. Vehicle wheel. J. R. Fouch, assignor to Fouch Disc Wheel Co., all of Minneapolis, Minn.

924,385. Knit fabric having elastic selvages. H. C. Shaw, assignor to Bauer & Black, all of Chicago.

924,429. Removable tire for vehicles. [Pneumatic.] A. M. Condit, East Orange, N. J.

924,545. Elastic cuff and sleeve protector. W. H. Emmert, Sewickley, Pa.

924,571. Tire casing. J. F. Palmer, Chicago.

924,572. Pneumatic tire. *Same.*

924,614. Vehicle wheel. L. A. Hill, Washington, D. C., assignor to American Resilient Wheel Co.

Reissues.

12,972. Elastic webbing. S. Kops, assignor to Kops Bros., all of New York city.

Trade Mark.

41,663. Hanover Vulcanite Co., New York city. The words *Shamrock-Gloria.* For motor cycle driving belts.

ISSUED JUNE 15, 1909.

924,806. Anti-skidding attachment for wheel tires. G. A. Lyon, Philadelphia.

924,812. Pneumatic tire. D. McArthur, Jersey City, N. J.

924,867. Fire hose nozzle. J. B. Winfield and C. F. Ackerman, Mansfield, Ohio.

924,924. Tire armor. W. O'Neil, Milwaukee, Wis.

925,005. Spring wheel. W. G. Marr, New Britain, Conn.

925,013. Hose clamp. B. L. Morrison, Colorado Springs, Co.o.

925,021. Vehicle wheel. H. O. Peck, assignor to H. O. Peck Automobile Wheel Co., Portland, Oreg.

925,022. Vehicle wheel. *Same.*

925,052. Tire protective rivet. E. B. Stimpson, Brooklyn, N. Y., assignor to Edwin B. Stimpson Co.

925,161. Grip tread for elastic tires. T. H. Curtis, Louisville, Ky.

925,354. Pneumatic heel for boots and shoes. J. V. Lambert, Chicago.

925,368. Packing. N. B. Miller, assignor to Clement Restein Co., all of Philadelphia.

Design Patent.

40,065. A. Siverson, College Point, New York. An ornamental design for tiling.

ISSUED JUNE 22, 1909.

925,532. Demountable rim. B. R. Tillson, Portland, Me.

925,580. Tire. [Comprises a plurality of inner tubes.] C. H. Keiffer, Akron.

925,713 Hose coupling. H. P. Magone, Race Track, Mont.

925,930. Wheel tire. J. D. Marvil, Laurel, Del.

925,937. Elastic vehicle tire. C. Motz, Akron.

925,959. Hose coupling. E. W. Smith, Horse Shoe, N. C., assignor of one-half to W. C. Jordan, Hendersonville, N. C.

925,969. Tire patch. J. A. Wheeler, Onaway, Mich.

925,985. Wheel tire. [Pneumatic.] A. Birnbaum, Erie, Pa.

926,012. Elastic vehicle tire. C. A. Motz, Akron.

ISSUED JUNE 29, 1909.

926,104. Tire protector. F. H. Davis, Chicago.

926,197. Water bag syringe. G. E. Kim, Pittsburgh, Pa.

926,296. Vehicle wheel rim. E. C. Shaw, assignor to The B. F. Goodrich Co., all of Akron.

926,315. Pneumatic device. F. Beck, Dumont, N. J.

926,338. Resilient tire. O. L. Leach, Cranton, R. I.

926,347. Pneumatic tire. M. Marcille, Paris, France.

926,387. Article of vulcanized footwear. M. C. Clark, assignor to Marvel Rubber Co., all of Providence, R. I.

926,439. Tire. [Pneumatic.] J. C. Raymond, New York city.

926,479. Support for rubber tire vehicles. H. Freye, West Orange, N. J.

926,499. Spare tire case. A. H. Kinder, Boston, assignor to C. F. Hopewell and F. B. Hopewell, Cambridge, Mass.

926,650. Vehicle wheel [with demountable rim]. G. C. Grable, Berwyn, Ill., assignor to The Perfection Emergency Tire Co., Chicago.

926,695. Vulcanizing apparatus for tire tubes or covers. W. R. S. Frost, London, England.

Design Patent.

40,107. L. P. Whiteman, New York city. An ornamental design for a hose reel.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each postpaid.]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the Application, which in the case of these listed below was in 1908.

**Denotes Patents for American Inventions.*

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JUNE 3, 1909.]

2,100 (1908). Pneumatic tire cover with leather cheeks. W. H. Bird, Manchester.

*2,115 (1908). Retaining device for pneumatic tire. E. Hopkinson, New York, and T. Midgley, Hartford, Connecticut.

2,176 (1908). Detachable rim flange for tires. C. North, Upper Wortley, Leeds.

2,219 (1908). Spring wheel with elastic tire. L. Garnier, Clermont-Ferrand, France.

2,291 (1908). Pneumatic tire with stiff ridge of rubber at each side of the tread. J. Jelley, Coventry.

2,340 (1908). Vulcanizing plate, the under sides of which are heated by the combined effect of the heat of the gases of combustion and of water vapor. P. Malley, Falkirk.

*2,380 (1908). Heel protector. A. J. Boult, London. (United Shoe Machinery Co., Boston, Massachusetts.)

2,381 (1908). Electric vulcanizer for tires. W. Frost and H. Frost & Co., London.

2,471 (1908). Tire rim with removable side flange. G. D. Harrison, Dublin.

2,474 (1908). Tire rim with detachable flange. W. S. Boult, London.

*2,485 (1908). Detachable heel pad. P. R. J. Willis, Kingston. (J. L. Giovana, New York city.)

2,507 (1908). Rim for pneumatic tires. B. T. Hamilton, London.

2,583 (1908). Rim for pneumatic tires. M. Cosset, Paris, France.

2,601 (1908). Pneumatic tire. C. A. Bradshaw, Manchester, and three others.

2,663 (1908). Rim for pneumatic tires. E. B. Killen, London.

2,687 (1908). Puncture proof tire band. C. Revillard, Paris, France.

2,736 (1908). Pneumatic tire. J. C. Barker, Leeds.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JUNE 9, 1909.]

2,780 (1908). Tire, not pneumatic, but rendered more resilient by means of air spaces. E. B. Killen, London.

2,787 (1908). Process and apparatus for treating rubber latex—with or without formaldehyde or other preservatives—so as to convert it into sheet form suitable for transport. L. Norzagaray, London.

2,796 (1908). Elastic filling for tires, cushions, and the like, made from an aerated mixture of gelatine, glycerine, and a coagulating agent. B. E. Foster, Westminster.

2,829 (1908). Cricket ball with wooden core wrapped with rubbered thread or cloth strips, and the whole covered with rubber. J. P. Higgins and G. A. Marsh, Birmingham.

*2,871 (1908). Apparatus for desk telephones to prevent the overhearing of conversations. E. H. Hutton, New York city.

2,873 (1908). Locking ring for tire rims. W. Clark, London. (H. Adlerwerke, vorm. Kleyer, A.-G., Frankfort-o/M., Germany.)

2,934 (1908). Pneumatic tire. H. Kuhnen, Kyffhäuser, Germany.

2,936 (1908). Solid rubber tire held in place by transverse bolts. Soc. Industrielle des Telephones (Construction Electriques Caoutchouc Cables), Paris, France.

3,005 (1908). Pneumatic tire cover with fabric, the warp of which is composed of China camel or other like hair. C. L. Marshall, London.

3,042 (1908). Pneumatic tire having twin treads in the concavity the metal chain or rope is laid. F. Reddaway, Pendleton, Manchester.

3,075 (1908). Pneumatic tire with metallic protective sheath. H. de Bernales and I. de Bernales, Paris, France.

3,112 (1908). India-rubber sheets manufactured from, or fabrics coated with waste or vulcanized rubber, in the form of powder or paste, which is spread on a traveling band or between bands passing over two drums, one adapted to be heated in order to vulcanize the sheet. T. Gare, New Brighton, Cheshire.

3,116 (1908). Tire of rubber blocks. W. G. Titherington, Liverpool.

3,187 (1908). Spring cored golf ball with rubber wrapping and gutta-percha cover. A. S. Oswald, Belfast.

3,250 (1908). Electrically heated vulcanizer for tires. W. H. Welch and H. Frost & Co., London.

3,358 (1908). Tire inflating pump to be held in the hand and operated by friction from suitable part of a motor car. L. Levent and F. Lhoste, Paris, France.

3,366 (1908). Vulcanizing apparatus comprising removable hollow heating tables fitting into pipes which communicate with the source of heat. G. de La Neziere, St. Quen (Seine), France.

3,370 (1908). Lever for pneumatic tires. H. J. Phillips, London.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JUNE 16, 1909.]

3,439 (1908). Pneumatic tire covers and hose fabrics of special construction. I. S. McGiehan, London.

3,548 (1908). Spring wheel with elastic tire. J. Horton and W. Horton, Halifax.

3,561 (1908). Pneumatic tire tread of leather links. H. V. McKay, Melbourne, Australia.

3,572 (1908). Product obtained by heating siccative vegetable oil with resin oil obtained from *Xanthorrhœa*, which may be used alone or mixed with india-rubber. R. W. Wallach and G. Reynaud, London.

3,578 (1908). Tire rim, perforated to prevent overheating of a pneumatic tire or preventing bursting of the air tube. W. C. Taylor, Paris, France.

3,639 (1908). Process for mixing waste rubber in crumb form with a volatile oil which, during subsequent heating expels air from the interstices; the mixture is then molded while still under heat. O. C. Immisch, London.

3,669 (1908). Tire rim of the divisible type. E. Comminge, Paris, France.

3,717 (1908). Tire with a small air tube protected by an elastic filling. I. Frankenburg, Salford, Manchester.

3,757 (1908). Twin solid tire engaged to the rim by eye bolts. J. W. Cann, Folkestone.

3,769 (1908). Tire composed of alternate layers of rubber and leather. H. L. Peters, London.

3,816 (1908). Tire filling composition having rubber as a base. R. A. Morris, Rossendale.

3,825 (1908). Device for assisting in the attachment of a Stepney spare wheel. W. R. Hughes, Cheltenham.

*3,867 (1908). Detachable tire carrying rim. W. E. Burroughs, New York city.

*3,876 (1908). Solid tire. B. C. Swinehart, Akron, Ohio.

3,877 (1908). Rim for solid tire. *Same.*

3,878 (1908). Elastic tire. L. Garnier, Clermont-Ferrand, France.

3,962 (1908.) Pneumatic tire with protective strip at the edge of the tread. E. Kempshall, London.

4,049 (1908). Vulcanizing apparatus; relates to the invention under patent 3,366 (1908). L. de La Neziere, St. Quen (Seine), France.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JUNE 23, 1909.]

4,140 (1908). Insoles of boots. A. Besser, Nowawes, Germany.

4,147 (1908). India-rubber substitute obtained by heating the glycerines with a dibasic or polybasic acid. L. Grognot, Paris, France.

*4,169 (1908). Detachable tire carrying rim. J. C. Cole, Chicopee Falls, Massachusetts.

4,202 (1908). Substitute for leather composed of layers of vegetable felt united by rubber solution. A. Nodon, Bordeaux, France.

4,298 (1908). Rim for pneumatic tires. F. W. Constantine, Bolton.

4,328 (1908). Sphygmomanometer in which the gage is connected by a rubber tube to a rubber bag. [A sphygmomanometer was described in THE INDIA RUBBER WORLD, October 1, 1908—page 31.] L. E. Hill, Loughton, and J. J. Hicks, London.

4,353 (1908). Self-sealing preparation for tire tubes. W. J. Thorolf, London.

4,405 (1908). Protector for heels of over shoes. T. Rankine, Edinburgh.

4,440 (1908). Tire cover strengthened by spiked eyelets. W. Eatwell, Chester.

4,554 (1908). Rim for pneumatic tires. T. Duysens, Maastricht, Holland, and two others.

4,561 (1908). Solid rubber tire supported by flexible side members. W. B. Hartridge, Seaford.

4,567 (1908). Tire pump adapted to be driven from a shaft of a motor car. M. Bohne, Berlin, Germany.

4,618 (1908). Tooth brush of rubber sponge. E. F. Lofgren, Elfsbyn, Sweden.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, JUNE 30, 1909.]

4,649 (1908). Spare rim for a supplementary tire. J. E. Hopkinson, West Drayton, and J. C. Akerman, London.

4,714 (1908). Regeneration of waste rubber by heating it with an ether of the alpathic or cyclic series the mass is diluted and filtered and the caoutchouc separated. Basler Chemische Fabrik, Basle, Switzerland.

4,972 (1908). Tire rim designed to be tightened in the case of a tire being used which consists of a flexible cover filled with an elastic material. R. H. Koppel, Stinvalpar-Trooz, Belgium.

4,981 (1908). Rim for pneumatic tires. J. S. Foley, West Bromwich, and F. W. Baker, Stourbridge.

5,117 (1908). Carrying rim for pneumatic tire. J. C. Dennis, Guildford, Surrey.

THE FRENCH REPUBLIC.

PATENTS ISSUED (with Dates of Application).

398,230 (Dec. 31). R. Rondeau. Method of attaching pneumatic tires.

398,022 (Dec. 30). C. W. Greenwood. The manufacture of the gum tragasol.

398,336 (Jan. 7, 1909). N. J. C. André. Leather cover for tires.

398,380 (Jan. 9). Boucas and Caron. Pneumatic tire.

398,402 (Jan. 9). P. Wienskowitz. Elastic tire.

398,470 (Jan. 13). S. A. Schewezik. Elastic tire.

390,490 (Jan. 14). Laurent Levingelstine Sons Co. Pressure rollers and pneumatic fittings for leather and other material working machines.

398,277 (Mar. 19, 1908). Francois A. Grellon & Co. Removable tire rim.

398,596 (Jan. 18, 1909). E. B. Killen. Wheel tire and device for fastening the same.

398,636 (Jan. 19). W. J. Teufel. Elastic tire of soft rubber.

398,740 (Jan. 23). Langbrook. Elastic tire.

398,583 (Dec. 15, 1908). G. Capelle. Process of regenerating vulcanized rubber.

398,678 (Jan. 21, 1909). W. Leyenthal. Device for gathering rubber which has coagulated on the trunk of the rubber trees.

398,705 (March. 30, 1908). Société de Caoutchouc par le Latex. Products obtained by mixing rubber latex with gelatine, glue of various kinds, starch, casein, gums and other plastic and viscuous substances, "viscose" and other cellulose solutions and all alkalized solutions.

398,565 (Jan. 16, 1909). J. Shoemaker. Rubber heels and soles for boots.

398,804 (Jan. 23). A. Genthe. Process for manufacturing linoxin and similar products, used more especially in the manufacture of linoleum.

398,815 (April 2, 1908). L. Baraduc-Muller. System of using very hard agglomerate for anti-skidding devices for pneumatic and other tires.

398,821 (Jan. 26, 1909). H. Talasso. Pneumatic tire cover.

398,962 (Jan. 30). W. Frost and Harvey Frost & Co., Ltd. Vulcanizing apparatus for tires and tubes.

398,912 (Jan. 28). J. P. Vivier. Pneumatic horse collar.

398,755 (Jan. 25). A. P. Uptegraff. Hoof pads.

398,811 (Jan. 26). E. Mongeal. Toy balloon.

398,979 (April 7, 1908). D. Lance. Elastic tire.

398,982 (April 7). C. de Rossette. Pneumatic tire.

399,003 (Jan. 16, 1909). R. Peretti. Segmental pneumatic tires.

399,009 (Jan. 21) Suriance and Leblanc. Three air chambers in one tire cover.

399,070 (Feb. 2). Mlle. T. B. Kempshall. Protective tread for tires.

399,079 (Feb. 2). H. G. Hugon. Tire tread composed of blocks of rubber and metal.

399,084 (Feb. 3). M. A. Kennedy. Tire cover.

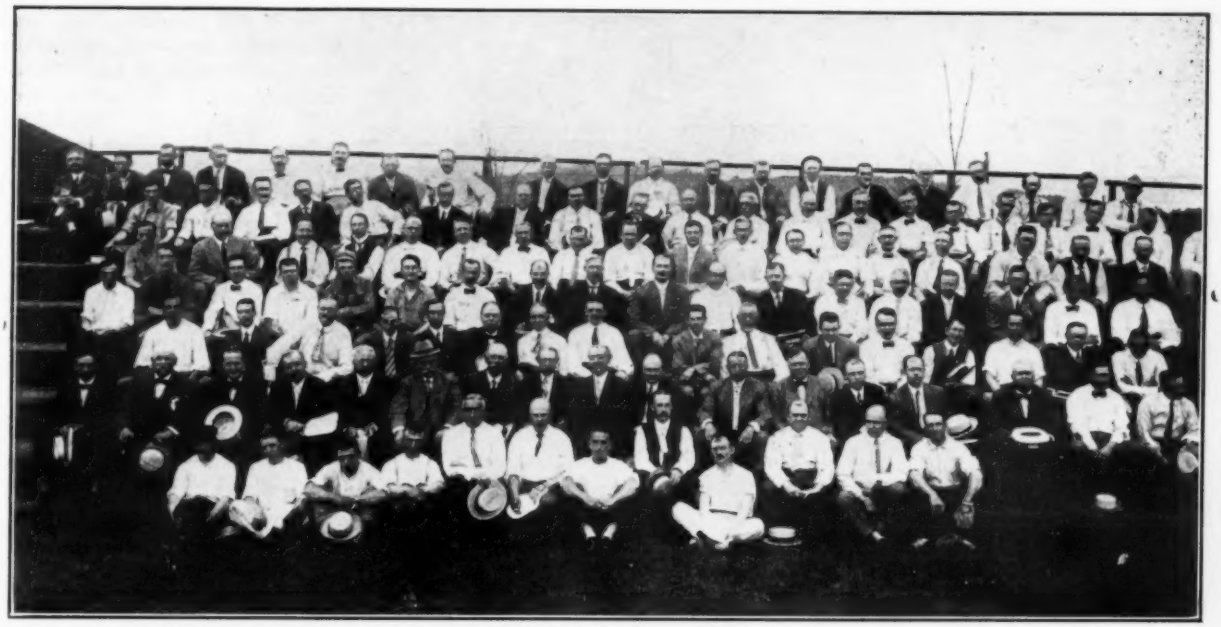
399,096 (Feb. 3). Dheyne and Bory. Elastic tire.

399,133 (Feb. 4). L. L. B. Denis. Tire with raised ridges on the surface, crossing each other and reinforced.

[NOTE.—Printed copies of specifications of French patents may be obtained from R. Robert, Ingenieur-Conseil, 16 avenue de Villier, Paris, at 50 cents each, postpaid.]

NOTWITHSTANDING the pneumatic tires and the very best of laminated springs, the automobile, the same as the horse-drawn carriage, has a disagreeable, trembling motion. To obviate this somewhat, india-rubber is placed between the body and chassis for the purpose of isolating the body as much as possible from the road shocks. This is a practice which will become more general in the future [says *The Carriage Monthly*]. Rubber blocks between springs and axles to diminish the road shocks have been in use for a long time, and better riding qualities were the results when fitted with rubber blocks. This much assured, it will be certainly a good improvement to place rubber between the body and chassis, improving its riding qualities and eliminate most of the trembling motion.

THE Imperial Ethiopian Rubber Co., Limited, registered in London January 9, 1907, to work a rubber concession from the Emperor Menelik, of Abyssinia [see THE INDIA RUBBER WORLD, June 1, 1907—page 274] report a loss on the first year's trading, although they collected 241,672 pounds of rubber, in addition to some coffee and beeswax.



MEMBERS OF THE RUBBER CLUB AT RIVERSIDE RECREATION GROUNDS.

The Rubber Club of America.

(Successor to the New England Rubber Club.)

NEARLY two hundred jolly rubber men, on the afternoon of July 13, gathered at the Riverside Recreation Grounds, in Weston, on the Charles river, and in spite of the sultry weather had the time of their lives.

One of the first things done after the crowd had exchanged greetings and looked the grounds over was the holding of the business meeting. It was very fully attended, the chairman being the president of the Club, with Secretary George H. Mayo as recorder of business. The first item was an amendment to the constitution by which a nominating committee, to be appointed by the executive committee, was created to prepare a list of candidates for office, to be voted upon at annual elections.

It was then voted that the name of the association be changed from New England Rubber Club to The Rubber Club of America. It was also voted to incorporate the club under Massachusetts laws. The following committee was appointed to act as incorporators: Hon. L. DeWart Apsley (chairman), Augustus O. Bourn, George H. Hood, Henry C. Morse, John H. Flint, Alexander M. Paul and Arthur W. Stedman.

It was also voted to change the constitution so that the dinners and entertainments be held at the discretion of the executive committee, instead of at fixed dates.

In the meantime the Lynn Cadet Band was discoursing sweet music in the broad covered pavilion that fronts the swimming pool. Soon most of the club was gathered there also, watching with interest and enthusiasm the diving and swimming of such of their youthful members as cared to don bathing suits. E. D. Hewins and J. Frank Dunbar did particularly well in this natatorial exhibition. Following this was a burlesque exhibition of watermanship, which in turn was followed by expert diving, swimming, and so on, by members of the Brookline Swimming Club. Professor Al. McCormic, a well-known swimming instructor in Brookline, brought a class of his boys from that town and for nearly two hours the youngsters held the crowd spellbound. They indulged in swimming races, tub races, fancy diving, life saving, padded lance fights from canoes, log rolling and other specialties in which they were marvelously proficient. So interested were the on-lookers that when the last number was called they could hardly drag themselves away to the ball field. Once there, however, they found themselves again interested and enthusiastic.

The vice president of the club, Mr. F. C. Hood, an all-around athlete and lover of outdoor sports, had at very brief notice rounded up a nine which he claimed could defeat any other nine the Club could produce. Captain Will Pitcher, with the aid of R. L. Chipman, had formed another nine of which he was not quite so sure. He therefore exchanged some of his players for some of Captain Hood's, the result being the four innings that followed were unusually hot ones and 'twas really the best ball playing the Club had ever had. The most spectacular hit was a long clean drive out of the field over the knoll and into the river by Webster, which brought three men home. It is said to be one of the greatest hits on those grounds.

The nine of which the vice president of the Club was captain was made up as follows: Page, l. f.; Hood, 2 b.; Webster, c.;

MENU.

Iced Olives and Radishes
SAUTERNE — Little Neck Clams
Consomme Royalle — Green Turtle Soup
Bread Sticks
Baked Lobster a la Thermidor
Sliced Tomatoes — French Dressing
Noisetts of Spring Lamb
Potatoes O'Brien — Fresh Green Peas
Sorbet Maraschino
CHAMPAGNE — Roast Native Squab
Currant Jelly
Romaine and Tomato Salad
Toasted Crackers — Roquefort Cheese
Assorted Cakes
Ice Cream
Pudding a la Diplomate — Bombe Nougat
Chilled Cantaloupe
Coffee

SWIMMING POOL AT THE RECREATION GROUNDS.

Muir, 1 b.; Rudstrom, p.; Duncan, 3 b.; Dane, s. s.; Glidden, c. f.; Roper, r. f.

Captain Pitcher's nine was disposed thus: Phipps, s. s.; Riddick, 2 b.; Palmer, r. f.; Daly, 3 b.; Pitcher, 1 b.; Abbott, c. f.; Kimball, l. f.; Hopkins, c.; Hallahan, p.

The umpires were Johnson and Barker; the scorer, Chipman.

At 7 o'clock the large balcony dining room was filled to overflowing and a very excellent dinner provided. The band, which seems to understand the musical proclivities of the rubber men, played popular airs, and the whole crowd sang with much gusto. There was a lot of noise and considerable music, and all enjoyed it. When coffee and cigars arrived, the president of the Club arose and proposed a rising toast to the President of the United States, which was enthusiastically responded to. Then, as is the Club's custom, a silent toast was proposed as a tribute to the three members who had died during the year, the Club's director, James Bennett Forsyth, and the honorary vice president, Robert D. Evans, and Joseph Davol.

Then followed the presentation of golf prizes for those who had played and won that forenoon at the Woodland Golf Club. The winners of the prizes were: First prize, F. C. Hood for the best gross, his score being 82 for 18 holes. E. H. Clapp and W. E. Barker tied about a net score of 76. The visitors' cup went to F. C. Blanchard, whose net score was 76.

The details of the outing and dinner were arranged and worked out by Secretary George H. Mayo; the sports committee, F. D. Balderston, chairman; and the dinner committee, F. H. Appleton, chairman, to whom the credit for a most enjoyable function is due.

A RETROSPECT.

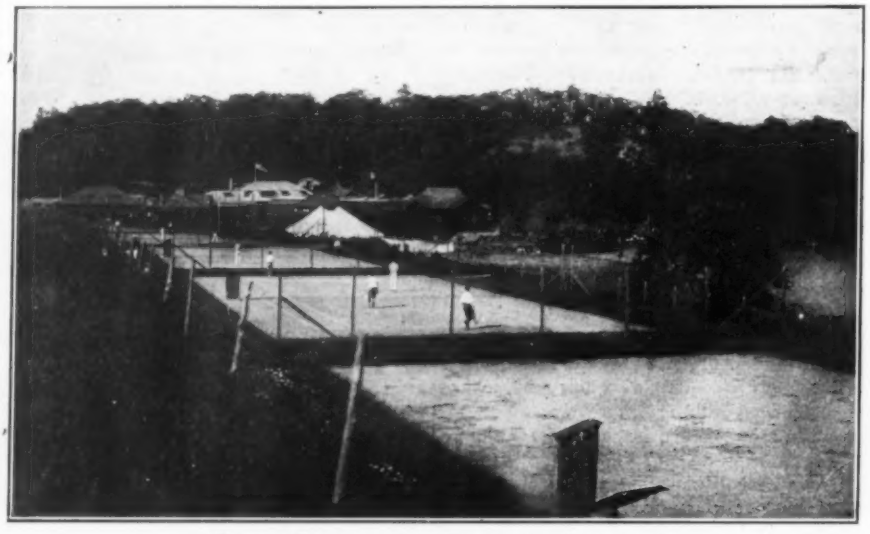
THE fact that the New England Rubber Club has concluded ten years of existence and it has been so successful from the beginning seems to call for a brief review of its history, particularly since the club is now taking on a new name and a broader scope. The original announcement to the trade of the plans and purposes of this association mentioned it as being the outgrowth of the occasional gathering of some score of men belonging to the rubber trade of Boston, who had been called together from time to time usually to take action on the death of a notable rubber manufacturer.

In January, 1900, after such a meeting, it was decided to form a permanent organization to embrace the rubber manufacturers in New England, and also that jobbers and retailers of rubber goods and importers of crude rubber should be eligible for membership. There being in the New England states about 250 members of the trade who would come within the scope of the proposed plan, it was felt that abundant material existed from which to form an excellent organization. The purpose of the club was purely one of social intercourse among gentlemen connected with the New England rubber trade. It was planned, however, to have an honorary membership to consist of rubber manufacturers in other parts of the world.

Leading members of the New England rubber trade took an interest in the movement from the start, and a temporary organization was effected and officers chosen who were formally elected at the first annual meeting, held at the Trade Club in Boston on April 16. Annual meetings have been held regularly in April up to this time, together with at least two other general meetings of the character proposed in the first general announcement:

"The present plan is to have two general meetings and dinners a year, and to have entertainment in the way of speeches and features of special interest that shall make each occasion one that will long be remembered by all who are in attendance."

The club has a formal constitution and by-laws, and is about to acquire a more formal charter, but the one sentence quoted here has served as the actual organic law of the association from the start, and is likely long to continue as the bond which holds the members together. Probably in the history of no other trade have there been so many gatherings of representative members



TENNIS COURTS AT THE RECREATION GROUNDS.

and certainly not under such agreeable circumstances. It must be considered that these informal gatherings have no business side; they have not been in fulfilment or any regulation or condition of membership; they have not occurred at fixed dates or places. Whenever the entertainment committee has announced plans for a meeting the members have simply flocked together, and from the continuance of the custom it may be inferred that after each dinner or outing they have felt that it was good to have been there.

In addition to the annual meeting in each year there has been usually a "midsummer dinner" and a "midsummer outing," the total attendance at which has been very large, considering the limited membership of the club. There have been present as guests, first and last, very many members of the trade from outside New England, and persons, including many notables, not connected with the trade. It has been the rule to arrange a programme which should give a distinctive character to each dinner—as when the "Goodyear Dinner" commemorated the birthday of Charles Goodyear, or when the "Naval Night" celebrated the recent round-the-world cruise of the United States navy. On the former occasion there was an exhibition of Goodyear relics and letters in honor of the inventor from all over the world; on the latter, half a dozen officers who had been with the fleet were the after-dinner speakers. The summer events have been devoted to outdoor sports, in which many of the rubber men are expert. The various entertainments are worth making a list of, particularly as it has not been done before:

1900.

April 16.—First annual dinner. Trade Club, Boston.
August 21.—Midsummer Impromptu. Point Shirley Club, Winthrop.
November 19.—Goodyear Dinner. Hotel Essex, Boston.

1901.

May 3.—Twentieth Century Dinner. Exchange Club, Boston.
August 20.—Midsummer Outing. Nursery Island Club.
November 21.—Tropical Symposium. Exchange Club.

1902.

May 13.—Annual Dinner. Exchange Club.
July 22.—Midsummer Outing. Country Club, Brookline.
November 20.—Thanksgiving Dinner. Exchange Club.

1903.

May 15.—Annual Dinner—"Mexican-American Fiesta." Exchange Club.
July 14.—Midsummer Outing. Country Club.

1904.

February 17.—Midwinter Dinner (170 present). Hotel Somerset, Boston.
April 18.—Annual Meeting; "Smoke Talk." Massachusetts Automobile Club.
July 26.—Midsummer Outing. Country Club.
November 21.—Smoke Talk. American House, Boston.

1905.

February 24.—Midwinter Dinner. Exchange Club.
April 25.—Annual Meeting. American House.
July 19.—Midsummer Outing. Country Club.

1906.

February 19.—Midwinter Dinner. Exchange Club.
April 16.—Annual Meeting. American House.
July 18.—Midsummer Outing. Point Shirley Club (including a visit to Peddock's Island as guests of the United States army).

1907.

February 13.—Transportation Dinner. Hotel Brunswick, Boston.
April 15.—Annual Meeting. American House.
July 17.—Midsummer Outing. Country Club.

1908.

March 11.—Midwinter Dinner. Algonquin Club.
April 27.—Annual Meeting. American House.
July 15.—Midsummer Outing. Point Shirley Club.

1909.

March 22.—Naval Night. Algonquin Club.
April 19.—Annual Meeting. American House.
July 13.—Midsummer Outing. Riverside Recreation Grounds, Weston.

Much good after-dinner oratory has been heard upon these occasions. The names of all the speakers of note would make a long list, but it must suffice here to say that they have included governors and other state officers of Massachusetts, mayors of Boston, Senators and members of Congress, cabinet members, and army and navy officers. Many of the addresses here have been of such importance as to lead to their publication at length in the newspapers. The topics have been such as appeal to business men—as when a Transportation Dinner was held—or else to patriotic and public spirited citizens generally. Topics of special interest to rubber men have likewise been discussed, and twice the secretary of the club was invited to give illustrated talks on rubber producing countries visited by him.

The first president of the club was Henry C. Morse, treasurer of the Revere Rubber Co. He was followed for two terms each by ex-Governor Augustus O. Bourn, of the Bourn Rubber Co.; two terms each by ex-Congressman L. D. Apsley, president of the Apsley Rubber Co.; John H. Flint, treasurer of the Tyer Rubber Co.; and Arthur W. Stedman, of George A. Alden & Co. At the last annual meeting the office was filled by the election of the Editor of THE INDIA RUBBER WORLD, who has served seven years as secretary and afterward as vice-president.

A SHOE AND LEATHER FAIR.

THE First World's Shoe and Leather Fair, at Boston, July 1-31, was held in an extensive new building, erected especially for the purpose, on the Charles river road. There was a great variety of exhibits, illustrative of all branches of the industries suggested by the name of the fair, domestic and foreign, ancient and modern.

The rubber footwear industry was represented by exhibits made by the United States Rubber Co., the Hood Rubber Co., the Apsley Rubber Co., and the Converse Rubber Shoe Co., showing in detail the lines of rubber boots and shoes made by them.

Exhibits of specialties related to the trade were made by other manufacturers: John H. Parker Co., leather soled rubber boots; Foster Rubber Co., "friction plug" specialties, heel cushions, and a patented dryer for drying out leather boots; Peters Manufacturing Co., Priestly's cravenetted cloth for shoe tops; Essex Rubber Co., shoe trade specialties; and North American Chemical Co., "Besto" waterproof bottom filler for shoes.

The Fair was planned by Mr. Oran McCormick, proprietor of the Boston journal, *Footwear Fashion*, and the attractive and extensive scale on which it was planned was due to his energy. The whole was highly praised by those who visited the building, but the attendance was far from encouraging, and on July 26 the Fair was placed in the hands of receivers, with authority to keep it open until the end of the month—the date originally fixed for closing it. George R. Nutter and Franklin T. Hammond were the receivers appointed, on allegations filed in court that the indebtedness was between $140,000 and $150,000.

THE MEXICAN RUBBER FIRES.

THE Tehuantepec Rubber Culture Co. (New York), in connection with the yearly financial statement, sent out to their subscribers under date of July 13, referred at length to the forest fires in the neighborhood of their "Rubio" plantation during May and June. In the last INDIA RUBBER WORLD (page 370) mention was made of reports of great damage from forest fires in Mexico. It appears that a drought had prevailed since February to a degree scarcely heard of in Mexico in the past, one result that fires were very prevalent and disastrous. The Tehuantepec company report, however, that not more than 20 acres of their rubber was destroyed, but the remainder of their plantation was saved only by the exertion of their working force almost constantly for weeks. Some other plantations were less fortunate, according to this report, but no names are mentioned. We quote: "Over near Acayucam, Saula was half burnt up, and up around Tuxtepec the papers say 40 square leagues of fine forests, engulfing many fine fincas and plantations. Amongst these was one American rubber place whose loss is said to have been $1,000,000."

The Rubber of South America.

UNSMOKED AMAZON "PARA" RUBBER.

THE appearance in the market of the rubber of the same character as "Pará," as the result of the work of planters in British Asia, and selling at a higher price than any rubber from the Amazon regions—the home of rubber of this character—has lent a great stimulus to the serious efforts which have been made in Brazil for years past to improve the quality of the rubber produced there.

While local scientific men have labored to impress upon the Brazilian trade the desirability of improvements, the rubber producers themselves, so long as they held in their hand a monopoly of the production of "Pará" rubber, naturally were not concerned about improving conditions. They were not concerned when so important a rubber manufacturer as the late Joseph Banigan, of the United States, asserted in a public address that the manufacturers of this country annually paid $5,000,000 for "dirt and water" in buying the rubber needed for their business. There was no way in which they could do better, and so long as they were obliged to buy from Pará the producers of rubber back of that port did not need to trouble themselves about removing the cause of complaint of Mr. Banigan and his fellow buyers.

The appearance in the market, however, of a new grade of Pará rubber, produced on the other hemisphere, and preferred by many manufacturers to the original Pará grades at a higher price, made a profound impression in the Amazon regions, particularly when it was attended by a rate of profit which had never been dreamed of in Brazil. The latest result of the experiments which have been made by scientific men in Brazil exist in the shape of specimens of rubber as clean, and showing as small a degree of shrinkage, as the best products of plantations in Ceylon and the Malay states.

It is not reasonable to assume that better rubber can be made in Asia than in South America, having the latex of the same species as the basis, and it was only necessary to have the attention of *seringueiros* in the latter country to appreciate the preference given by consumers to clean rubber to stimulate an interest there in the production of rubber of this kind. Furthermore, from the earliest times smoking the latex of *Hevea* has been regarded in Brazil as essential, but the success attained by the Eastern planters in producing rubber without the agency of smoke has encouraged the thought on the Amazon that smoking may not after all be a requisite.

Specimens of rubber which have reached the United States recently, prepared from the latex of *Hevea* without smoking, have all of the desirable qualities of the best plantation Pará produced in the Far East, together with the "nerve" which is admittedly lacking in the best plantation sorts. Dr. Carlos de Cerqueira Pinto, a physician and chemist of Pará, Brazil, who has been a recent visitor to the United States, for many years has been among those who studied and worked to learn if it were not possible to coagulate the latex of both *Hevea* and "caucho" (*Castilloa*) in a better and more cleanly manner. He has not by any means confined his researches to the laboratory. For six years he traveled up the various rivers that are affluents of the Amazon and rubber gathering as few men have done.

The first result of Dr. Pinto's research was the production of a cheap and simple preservative compound to be added to the latex immediately after collection, to prevent coagulation in transit to the smoking camp, and also to prevent fermentation in case it should be desirable to hold the latex for any length of time before smoking. Later he produced coagulating compounds, the addition of which to latex facilitates its conversion into rubber without the necessity of smoking. Dr. Pinto is of the opinion that a certain degree of excellence of Pará rubber prepared by the native method is due to the property derived from the smoke. In the preparation of his coagulant, therefore, he has sought materials which will give the same properties to the rubber without giving certain other less desirable properties.

Taking his system as a whole, the addition of the preservative to the latex retards coagulation until such time as the latex is to be formed into rubber, and by preventing fermentation of the material keeps it in a condition which permits of its being strained—a process, by the way, not usual among Brazilian *seringueiros* to-day. When the time arrives for coagulation, the strained latex being placed in shallow tins and a small amount of the coagulant added, the rubber speedily solidifies to a degree that renders it susceptible to mechanical pressure to remove the moisture.

The samples of *Hevea* rubber brought to the United States by Dr. Pinto as the result of his process are very fine. The rubber is tough, it has the characteristic mahogany tint usual in fine Pará, but it is free from the familiar smell that characterizes the smoked product. If both the preservative and the coagulant could be generally adopted it would result in cleaner rubber and in a greater proportion of "fine," as "medium" would not be made, and a small proportion of "coarse." The importance of this fact alone is indicated by the fact that the proportions of these grades exported through Pará of late has been about 61 per cent. of fine, 11 per cent. of medium and 28 per cent. of coarse. Dr. Pinto has experimented not only with Pará rubber, but with caucho and mangabeira, the quality of which as produced by him is vastly superior to the normal qualities of these grades.

The Brazilian government has granted to Dr. Pinto five patents. The letters patent themselves do not reveal the nature of the compounds to which they relate. It can only be stated here that the patents cover the following inventions:

No. 4,227. "Seringuina," for retarding fermentation for short period. (This was first referred to in THE INDIA RUBBER WORLD, in its issue of March 1, 1905, page 183. At that time the question of preparing rubber without smoking had not been taken up.)

No. 4,751. "Seringuina liquida," for retarding fermentation indefinitely; this has been done for three years or more.

No. 4,750. "Mangabina," a coagulant for mangabeira rubber.

No. 5,191. "Lactina," a coagulant for fine Pará rubber.

No. 5,192. "Cauchina," a coagulant for caucho.

While these letter patents do not embrace specifications, THE INDIA RUBBER WORLD has in hand a copy of a Mexican patent granted to Dr. Pinto (No. 8,413—October 6, 1908) covering his coagulant "Cauchina," designed for use in connection with the latex of the *Castilloa clastica*. The patent claim is for—

> A chemical compound jalap, prepared in any form, and creosote in all its forms, regardless of whether these substances are used separately or together in their natural state, or dissolved in alcohol or any other solvent, or whether they are present in liquid or pastry form or in the form of a paste, or in a compressed state, mixed with pulverizing substance or substances in a state of amulsion, for the purpose of using the same for the coagulation of the sap of the rubber plant and other plant saps.

Alcohol is well known to be a good coagulant of rubber. Jalap is derived from the roots of the *Convolvulaceæ*, that of one of the *Ipomeas* being the most important and a relative of the "amole" vine used throughout Central America in the coagulation of rubber by the natives. Creosote acts probably as a preservative. The compound seems a good one and should do the work.

Dr. Pinto at Rio received a letter from the Continental Coautchouc- und Guttapercha Compagnie, of Hanover, saying:

"We received your sample of latex, as well as the corresponding coagulating agent, which we delivered to our laboratory for examination. It is really interesting that this latex, although

nearly a year old, still remains perfectly liquid. Friends in Amazonas, Africa, and other tropical countries have been constantly sending us samples of latex which usually arrived in a state of fermentation, with the exception of such as had been saturated with ammonia. This most important feature of the latex you sent us is that it contains no ammonia and reacts slightly acid."

A RUBBER CONGRESS IN THE ACRE.

APROPOS of an article on "The Rubber System of the Amazon," in the last issue of this paper, which was districts as remote as parts of the new Federal territory of the Acre, it is interesting to note that a rubber congress, based upon official initiative, is to be held this month in that territory. There follows a translation of an announcement of this "Congresso Industrial Seringueiro," which appears in the *Revista* of the Amazonas Commercial Association, at Manáos, in the form of a circular letter addressed by the prefect *pro tem.* of one of the districts of the Acre territory to the president of the association named:

SENNA MADUREIRA,
Department of Alto Purus, May 5, 1909.

Senhor WALDEMAR SCHOLZ, President of the Commercial Association of Amazonas:

SIR: Whereas the essential interests of the Acre regions require that prompt measures be taken for protecting, safeguarding and developing their greatest source of wealth, Rubber, as well as in regard to other matters of great importance, all of which are in every respect foreign to the field of politics, and whereas it is a fact that these matters can only be practically and efficiently discussed by direct exchange of opinions between the owners of rubber producing lands and the manufacturers interested in their product, it has been decided to hold in this city a great Congresso Industrial Serèngueiro (industrial convention of rubber producers).

I therefore beg to invite you to have your association represented in the proceedings of the said convention, which will hold its initial session on the 8th day of August next, at 1 P. M., and its final session on the 22nd of the said month.

Thanking you in advance and assuring you of my high esteem and appreciation, I am

Respectfully yours,
SAMUEL BARREIRA.

The following comments on the same, from the *Revista*, may be regarded as an official expression from President Scholz:

"Our satisfaction at receiving the above circular can readily be conceived. Ever since last year we have been continuously and most earnestly preaching, both by example and exhortation, and finally through the columns of this publication, the necessity of our reawakening in order to guide our extractive industry into new channels.

"With this end in view, we have been unsparing in our efforts in every direction. The new by-laws of our Commercial Association even now contain two provisions, under one of which our delegates in the interior of the state and in the Acre territory have been appointed, while the other provides for a convention of the representatives of agricultural, manufacturing and commercial interests, which is to meet every second year in this city [Manáos]. In accordance with the decisions of the said states, we have already commenced to make the necessary preparations for the said convention.

"While expressing our satisfaction at the initiative taken by the organizers of the industrial convention of rubber producers, we desire and herewith advise that other localities take the same initiative, in order that at the time of the meeting of the general convention which will be held in due time in this capital [Manáos], we may already have at our disposal certain valuable data which may serve as a partial foundation on which to base the radical and final solution of the great industrial and agricultural problem of Amazonas.

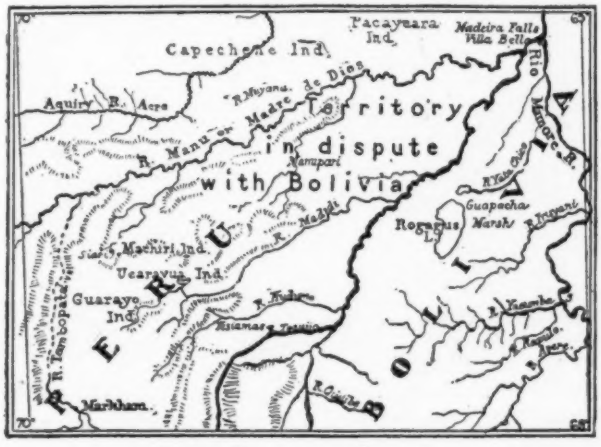
"Accepting the invitation extended to us by the estimable prefect *pro tem.* of the department of Alto Purús, we shall entrust our delegate in Senna Madureira, Dr. Geraldo Barbosa Lima, with the task of representing us at the industrial convention of rubber producers, with the assurance that the same will splendidly fulfil his duty."

The executive head of the Associação Commercial do Amazonas, Mr. Scholz, is also the head of the rubber commission firm of Scholz & Co., who have long been the largest exporters of rubber from Manáos and who rank third among exporters from all the Amazon ports combined. This firm, before July 1, 1905, was styled Witt & Co. The former head of the firm—and still a partner in it—Mr. Nicholoa Henrique Witt, took an active part in the International Rubber Congress in London last year, and his paper entitled "Notes on the Growth and Production of Pará Rubber in Brazil" formed an interesting contribution to the official report of the meeting. The fact that these gentlemen are to be identified with the coming congress at Senna Madueira is alone a guarantee that its proceedings will be of interest and importance.

It is timely to recall that Mr. Scholz was the Amazon merchant interviewed in THE INDIA RUBBER WORLD June 1, 1904 (page 298), on the question "When there is a heavy advance in crude rubber prices who pockets the additional cost?" Prices, by the way, were then exceptionally high. Mr. Scholz said that the money went to the *seringaes*, and he added: "Our houses are very large buyers of rubber, but only on a commission basis. We never engage in any speculation, and the price of rubber is not a matter of concern to us. The rate of commission is the same, whether the market is high or low, though, of course, the higher the market the larger the volume of commissions on a given transaction. Prices are made by supply and demand; if manufacturers are eager for rubber, when stocks are small, prices go up, just as they go down when the conditions are reversed. But when prices do go up, it means more money for the man in charge of gathering rubber and shipping it to the prime markets, as Manáos and Pará."

ALMOST A WAR OVER RUBBER.

THE diplomatic imbroglio involving Peru and Bolivia about which the newspapers have had so much to say during the month grows out of a boundary dispute between those republics. This is a dispute of long standing, which was referred for arbitration to the president of Argentina. When his award was made public in Bolivia the public dissatisfaction was expressed in a manner offensive to the authorities of Argentina, which republic at once broke off diplomatic relations with Bolivia, and a grave crisis,



RUBBER TERRITORY IN DISPUTE.
[From the New York *Times*.]

as the diplomats say, resulted. The territory in dispute is in the heart of a rich rubber district in the regions of the Madre de Dios, Orton and Heath rivers, to the west of Rio Beni, and south of the Acre. The excitement in Bolivia seems to have been due to uncertainty as to whether the limit of longitude fixed by the arbitration of Argentina was calculated from the meridian of Paris or that of Greenwich. If the former, Bolivia would lose an important amount of territory rich in rubber; if the latter, Peru would be the loser. Incidentally Brazil is interested, since the agreement between Brazil and Bolivia of November 17, 1903, under which the Acre district was conveyed to the former by the latter country, reference was had to the then understood boundary between Bolivia and Peru, by virtue of which the country recently in dispute was regarded as Bolivia.

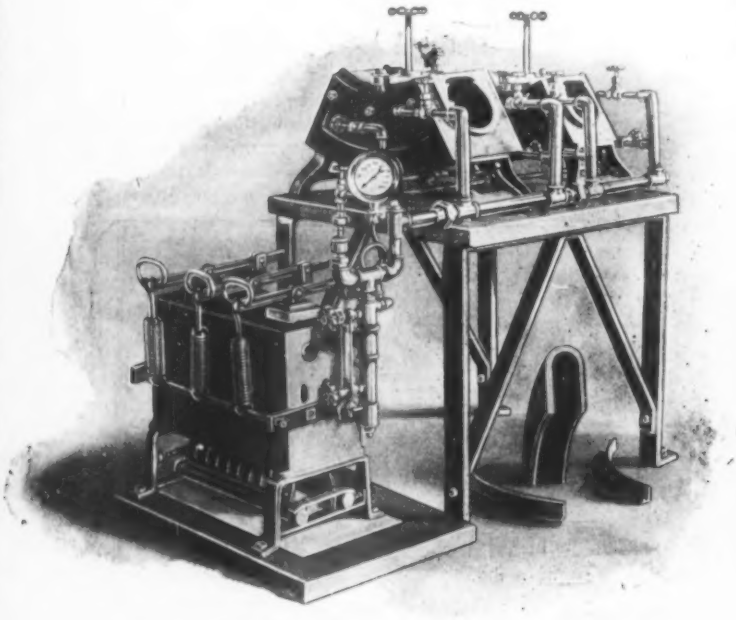
In case the effect of the Argentinian arbitration should prove averse to Bolivia, Peru would be entitled to claim from Brazil a share of the Acre district ceded to her in 1903 by Bolivia. It does not appear, however, that war is now imminent, and the latest report at this writing is that the governments of Bolivia and Peru, the latter the apparent beneficiary of the boundary award, have mutually agreed to open negotiations directly with each other, and without the intervention of any other nation, in the hope of arranging a modification of the Argentina territorial award which will be satisfactory to all parties concerned.

The area which is the immediate subject of the negotiations under review is just south of the territory ceded by Bolivia to Brazil following the activity of Sir Martin Conway, a few years ago, under concessions from the government of Bolivia.

RUBBER SCRAP FROM MALAYA.

SING a song of rubber;
Estimates revised!
Shareholders in plenty
Pleasantly surprised.
When the annual meeting
Shows the profits net,
Won't there be a chorus,
"Come and have a wet!"

—*Malay Mail.*



AKRON-WILLIAMS COMBINATION GAS BURNER STEAM GENERATOR REPAIR EQUIPMENT.

[The Williams Foundry and Machine Co., Akron, Ohio.]

NEW TRADE PUBLICATIONS.

UNDER the title "Rubber for Railroad Requirements" The Diamond Rubber Co. (Akron, Ohio) issue a catalogue of air brake and other hose called for in railroad practice, the description of which is supplemented by some very informing comments on the kind of hose suited for the best railroad work, and suggestions as to why some hose is better than other makes. The catalogue is unusually attractive in appearance, as well as original in its contents. [4" × 6¼". 24 pages.]

JAMES L. GIBNEY & BROTHER (Philadelphia), in their new illustrated catalogue of Gibney Tires, include in addition to their special brands the output of the leading makers of pneumatic and solid tires, for automobiles and motor trucks and automobile accessories generally. [6¾ ins. x 10 ins. 168 pages.]

ALSO RECEIVED.

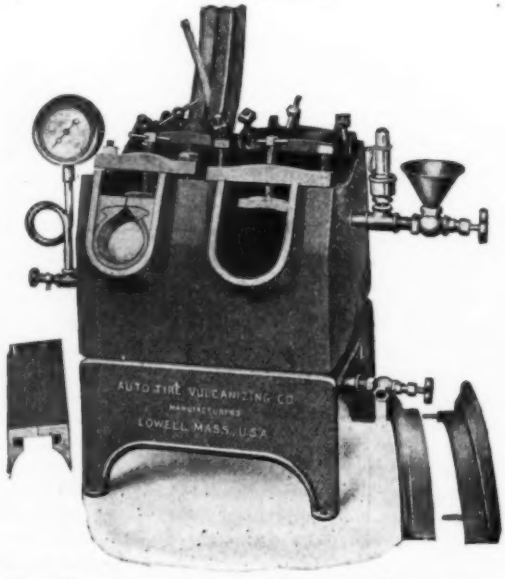
FORD MANUFACTURING CO., Chicago.=Galvanized Rubber Roofing. 8 pages. A Few Testimonials. 32 pages.

Abbie Engineering Co., No. 220 Broadway, New York.=Catalogue No. 4—Pulverizers. 62 pages. Pebble Mill Specialties. 92 pages.

DEVOTION to athletic sports is no more general than the demand for light footwear that is equally suitable for gymnasium purposes and for open-air exercise. Shoes with rubber soles, specially made for this purpose, are in great favor, although they are sometimes found objectionable because they overheat the feet. Insoles of various kinds have been used to overcome this objection, and the Asbest und Gummiwerke Alfred Calmon, of Hamburg, have recently been successful in combining the rubber sole with a specially prepared asbestos insole in such a manner that their disadvantages have been much increased by utilizing the good qualities of asbestos as well as of rubber.

A RECENT issue of THE AMERICAN, of Bluefields, Nicaragua, mentioned that Mr. Gordon Waldron, manager of the "Canada" plantation of the Cukra Co. of Toronto, Limited, was planning to begin soon the tapping of rubber. They have already been exporting bananas for some time.

THE Boston *Herald* hears from Kingston, Jamaica, that a company has been formed in England with £300,000 capital to establish a chain of central sugar factories on that island, and grow rubber.



NEW IMPROVED ADJUSTABLE SECTIONAL VULCANIZER.

[Made to connect with steam boiler or with gas or gasoline burners. For any size tire of standard make. Auto-Tire Vulcanizing Co., Lowell, Massachusetts.]

Recent Rubber Planting Results.

FOUR YEARS' RECORD OF CICELY ESTATE.

ONE of the most informing contributions to the subject of rubber plantation results to date is the address of the chairman of the Cicely Rubber Estates Co., Limited, at the fourth annual meeting of the shareholders (London, July 9). The whole is too lengthy for repetition here, but broadly it may be summed up thus: The Cicely estate has been finished and the shareholders have already had all their money returned, besides which they own a very profitable estate.

The company was registered in London December 20, 1904, with £12,900 [$58,398] capital authorized, to acquire the "Cicely" estate, in Perak, Federated Malay States, on which 138 acres had been planted, with 15,000 *Hevea* trees. The capital was divided equally between ordinary shares and 5 per cent. preference shares. The preference shares rank equally with the ordinary in each year after they have received their 5 per cent. The £6,000 in ordinary shares were taken by the vendors in part payment for the property; they received in addition £3,300 [= $16,059] in cash, from the proceeds of the £6,000 in preference shares offered to the public. In 1908 4,000 new ordinary shares were issued, at a premium of £2 per share, and all are now fully paid, amounting to another £12,000 [= $58,398]. The total investment to-day, therefore, stands at £24,000 [= $116,796], of which £18,000 [= $87,597] has been in cash.

The original acreage, with subsequent additions, amounts to 829 acres, distributed as follows:

Original clearings and foreclosures (planted 1898 to 1900)	159
Planted 1905	194
Planted 1906	241
Planted 1907	200
Planted 1908	35
Total	829

The results attained thus far have been from the larger trees on the 159 acres; this year the remainder of the trees on this tract will be tapped, together with part of the 1905 planting; next year the larger trees of the 1906 planting will become tappable and so on.

The yield of rubber and the financial returns have been as follows:

Yield (pounds)	9,184	19,069	43,695	54,341
Average per tree	1.32	2.37	4.85	6
Average price realized	5*s.* 6*d.*	4*s.* 11*d.*	3*s.* 6*d.*	4*s.* 7*d.*
a Cost of rubber per pound	2*s.* 10*d.*	1*s.* 9*d.*	1*s.* 2*d.*	1*s.* 2*d.*
Trees tapped	6,919	8,020	9,000	9,000
Dividends, preference	10%	20%	42½%	55%
Dividends, ordinary	5%	15%	37½%	50%

[*a* Collection and shipment, excluding London charges.]

The company has returned to the shareholders, in the four years of operation, a total of 107½ per cent. on their ordinary shares and 127½ per cent. on the preference shares.

With relation to prices, the chairman said: "Of course we have no control over the selling prices, and I am not at all sure whether it would be good policy to try to control them. We naturally wish to get as much for the crop as we can, but hitherto we have objected to forward sales. This is a speculative business which does not commend itself to us, and we have never adopted that policy. We have had several offers, but we do not think that we ought to sell our crop forward, so that shareholders will know that, whatever happens to be the price of rubber—whether it goes up or whether it goes down in the autumn—we shall be selling our rubber at that current price. We have got our rubber to sell, and we do not propose to sell our crop in advance for a year or for years or anything of that sort. The average price last year was 4*s.* 7*d.* [=$1.11, gold] to March 31. - - - A few months ago we had an offer to sell the whole of our crop for this year at 5*s.* [= $1.21] per pound; at the last board meeting we had an offer of 5*s.* 8*d.* for the year's crop; and we have got to-day a further offer of 6*s.* [=$1.46] per pound. - - - We have sold nothing under 5*s.* 8½*d.* [=$1.38] since we had the offer of 5*s.* and recent sales have been at 6*s.* 1½*d.*, 6*s.* 3½*d.*, 6*s.* 4½*d.*, 6*s.* 7¾*d.*, and 6*s.* 8¼*d.* [=$1.62½]."

It will be seen from the table in this article that all the trees tapped on the Cicely estate in 1908 averaged 6 pounds of rubber. Nine thousand trees were tapped in that year, and 9,000 in 1907, but they were not altogether the same trees; in other words, 3,000 of those tapped in 1907 "rested" last year, and 3,000 others were tapped which had not been cut in the preceding year. What effect this may have had on yield is not stated.

At the annual meeting two years ago, when the average yield was less than 5 pounds, the chairman said that as much as 8 pounds of dry rubber had been obtained from one tree, in 100 tappings. Covering a period of two months, and "lots of other trees do the same."

COST OF PLANTATION RUBBER.

THE Ceylon newspapers contain interviews with Mr. J. A. Hunter, a former planter in Ceylon, who has become interested in the Malay States and is now visiting in England. With regard to the yield of *Hevea* in Malaya, and the cost of production, Mr. Hunter is quoted:

"Mature trees are yielding 3 to 5 pounds of dry rubber per tree [per year]. A fair day's work for each coolie is 3 pounds of dry rubber—that is his task—and he gets that by using the old-fashioned ¾-inch gouge. The best tapping I have seen has been done by that instrument and not by the patent knives. The gouge does not do any damage and we get big yields. On some estates the yields I have mentioned have been secured now for two or three years.

"This year is an exceptionally good year for rubber. There has been a lot of rain, and no semblance of drought anywhere, and everywhere I hear of the crops being well ahead of the estimates and expectations."

With each coolie bringing in 3 pounds a day, at what do you put down the cost of production now?"

"I know one or two estates that are laying down their rubber in London at a shilling. That includes the total cost of production and freight to London. The coolie who brings in 3 pounds per day is paid 50 rupee-cents [=16¼ cents, gold] a day. I put down the cost of tapping only at 16 to 20 rupee-cents [=5.2 to 6.5 cents, gold] per pound of dry rubber.

"In that case the old labor estimate of one and a third coolie to the acre was a good deal out?"

"Yes. The coolie working full time brings in practically 1,000 pounds of dry rubber in the year. We calculate upon getting 250 to 300 pounds per acre as a fair average yield, so that gives one coolie to every three to four acres. Keeping absolutely on the safe side, I think it can very well be assumed that one coolie can tap from three to four acres."

NEW RUBBER PLANTATION COMPANIES.

Among the important rubber-planting companies floated in London during the month were: (1) The Java United Plantations, Limited, with £200,000 [=$973,000] capital, to acquire and consolidate five estates in the district of Djember, Java, already planted to an important extent to rubber, coffee and tobacco. There are on these properties about 95,000 *Hevea* and 83,000 "rambong" (*Ficus*) trees. (2) Jong-Landor Rubber Estates, Limited, with £65,000 [=$316,322.50] capital, to acquire two estates in Perak, Federated Malay States, on which there have been planted respectively 383 and 694 acres of *Hevea* rubber. (3) Tangkah Rubber Estate, Limited, with £125,000 [=$608,312.50]

capital, to acquire and further develop an estate in Johore, Malay peninsula, on which 1,884 acres have been planted to rubber, but mostly among pepper and tapioca. (4) Jamaica Estates and Rubber Plantations, Limited, with £300,000 [=$1,459,950] capital, to acquire properties in Jamaica and elsewhere and plant or deal in sugar, bananas, rubber and hardwood. Sir Henry Arthur Blake, G. C. M. G., formerly governor of Jamaica and late governor of Ceylon, is one of the directors. (5) The Rembia Rubber Estates, Limited, with £60,000 [=$251,990] capital, to acquire a group of estates in Malacca, Malay peninsula, on which 754 acres are now planted to *Hevea* rubber.

COMPARATIVE RESULTS.

[See THE INDIA RUBBER WORLD, June 1, 1909—page 311.]

BUKIT Rajah Rubber Co., Limited.—Federated Malay States:

	1907.	1908.	1909.
Yield (pounds)	118,982	163,521	210,081
Selling price, gross	5/3.62*d.*	3/8.87*d.*	4/9.84*d.*
Dividends	30%	30%	55%

Trees tapped last year, 94,600; average per tree, 2.22 pounds, or 1 ton per 1,000 trees.

Vallambrosa Rubber Co., Limited.—Federated Malay States:

	1907.	1908.	1909.
Yield (pounds)	156,922	225,302	281,183
Selling price, net	5/1.5*d.*	3/7*d.*	.....
Dividends	55%	55%	80%

Federated (Selangor) Rubber Co., Limited:

	1907.	1908.	1909.
Yield (pounds)	7,871	23,618	59,694
Selling price, net	....	3/7.5*d.*	4/8.75*d.*
Dividends	nil	8%	30%

Trees tapped last year, 34,072, including 5,000 tapped two months only; average yield, 1¾ pounds per tree.

Cicely Rubber Estates Co., Limited.—Federated Malay States:

	1907.	1908.	1909.
Yield (pounds)	19,069	43,695	54,300
Selling price, net	....	3*s.* 6*d.*	4*s.* 7*d.*
Dividend, preferred	20%	42½%	55%
Dividend, ordinary	15%	37%	50%

RUBBER PLANTING IN BRITISH BORNEO.

THE British North Borneo Co., a chartered company having sovereign and territorial rights over the whole of the state of British North Borneo, continues to report favorable progress. The revenue for 1908 was £152,946, and the dividend declared 4 per cent.

This chartered company has granted concessions on favorable conditions to a number of companies for planting rubber, tobacco, and other crops. The rubber companies so formed to date in its territory are:

Sapong Rubber and Tobacco Estates, Limited. Formed April, 1905; offices, London; capital issued, £71,378; rubber planted, 730 acres.

British Borneo Pará Rubber Co., Limited. Formed April, 1905; offices, Glasgow; capital issued, £28,000; rubber planted, 900 acres.

Tenom (Borneo) Rubber Co., Limited. Formed January, 1906; offices, Glasgow; capital subscribed, £60,000; rubber planted, 1,300 acres.

Manchester North Borneo Rubber Co., Limited. Formed November, 1906; offices, Manchester; capital subscribed, £50,000; rubber planted, 700 acres.

Langkon North Borneo Rubber Co., Limited. Formed March, 1906; offices, London; capital subscribed, £60,000; rubber planted, 950 acres.

Beaufort Borneo Rubber Co., Limited. Formed 1907; offices, London; capital subscribed, £60,000; rubber planted, 700 acres.

Sekong Rubber Co., Limited. Formed June, 1908; offices, London; capital allotted, £60,007; rubber planted, 300 acres.

North Borneo State Rubber, Limited. Formed November, 1908; offices, London; capital subscribed, £100,000; rubber planted, 400 acres.

The authorized capital of these eight companies is £760,000; the amount of capital issued, as shown above, £489,385, in addition to £38,622 in debentures. The acreage of rubber planted, at latest accounts, mostly *Hevea*, was 6,000. Some of these companies are planting tobacco temporarily. Rubber has been tapped on the Sekong estate for two years past, some of the product selling in London on June 25 at 6*s.* 10¼*d.*

RUBBER PLANTING IN INDIA.

LITTLE attention has been attracted to the rubber planting in southern India as yet, for the reason that the estates there have not become productive. But considerable rubber is being planted there, and with good prospects. The Travancore Rubber Co., Limited, an Edinburgh company, with £40,000 capital, have an estate in the state of Travancore, which is in the same latitude as northern Ceylon, on which are 19,367 *Hevea* trees planted in 1905, 167,433 planted in 1906, and 18,075 planted in 1907, besides 20 acres planted to Ceará rubber in 1906. It is anticipated that 7,000 pounds of rubber will be secured next year. The estate outlay in 1908 was £3,448.

BRIEF MENTION.

AT a special meeting of shareholders of Manchester North Borneo Rubber, Limited (Manchester, May 21), it was voted to increase the capital from £65,000 to £100,000, to provide for increasing the company's area under rubber. The company is planting tobacco largely as a temporary crop.

Rubber Estates of Johore, Limited, began planting in March, 1907, and at the last annual meeting (London, May 4) it was reported that over 3,300 acres had been placed under rubber. The oldest rubber had cost to date about £14 10*s.* [=$70.56] per acre.

Kautschuk-Plantage Mombo, G. m. b. H., has been registered at Arnstadt, Germany, with a capital of 510,000 marks [=$121,380], to plant rubber at Mombo, in the Wilhelmstal district, German East Africa. It is formed to develop a plantation already started by Robert Trautman, of Arnstadt, and Gustav Weisflog, of Erfurt, Germany, who are the organizers of the new company.

Mr. H. A. Wickham, who will be remembered in connection with the original introduction of the cultivation of *Hevea* rubber into the Far East, is still active in connection with rubber interests, as indicated by his share in the organization of Mombiri Rubber Plantations, Limited, with £52,000 capital, registered in London, April 20, 1909. The object is to acquire the benefit of a lease granted to Mr. Wickham of an estate in Collingwood Bay, East coast of Papua (New Guinea), to adopt agreements with Mr. Wickham, and to carry on the business of rubber culture. One of the signatories is Mr. Wickham, whose address now is 9, James street, Westbourne terrace, W., London.

SMOKED PLANTATION RUBBER.

MUCH interest has been expressed in the London market in the smoked sheet rubber from "Vallambrosa" and other Malay States plantations. Some lots have been received also from British North Borneo. Gow, Wilson & Stanton Co., Limited (London), advise: "The high prices recently obtained for fine smoked sheet have attracted considerable attention, but we would strongly urge that the utmost care should be taken in the preparation of such rubber, which should be kept absolutely clean and uniform, as varying and unsatisfactory shipments coming on the market would be liable to prejudice buyers."

The plantation managers are striving earnestly to produce rubber of the highest possible quality, and the fact that they are experimenting with the smoking process is evidence of an idea being entertained that the superiority in some respects of Amazon Pará to plantation rubber may be due to the use of smoke in the coagulation of the latter. At the recent meeting in London of the Lanadron company the chairman called attention to their having consulted chemists with regard to the production of their rubber. The London correspondent of *The Times of Ceylon* recently telegraphed his paper:

"The leading rubber companies are supporting a scheme to send a chemist to the Straits, independent of government, to improve the curing of rubber. It is probable that the scheme will be extended to Ceylon."

THE Dutch government have conferred upon Dr. A. G. N. Swart the decoration of an officer of the Order of Orange-Nassau, as a recognition of his services as president of Netherlands commission to the International Rubber and Allied Trades Exhibition at London last year.

The Editor's Book Table.

INTERNATIONAL RUBBER CONFERENCE.

THE official record of the conferences held in connection with the International Rubber Exhibition (London, 1908) has now come from the press, and proves to be an important contribution to the literature of india-rubber. The various lectures and discussions were reported verbatim, and the papers read are printed in full. The result is a volume of 272 pages, on which the printer has put a great deal more matter than is contained on the ordinary book page. The editing of the book has been excellently done by Dr. David Spence, who also translated into English several papers presented in other languages. The editor's work has been far from perfunctory, what, with providing a general introduction, notes introducing the different papers, and frequent footnotes. He has supplied also a table of rubber yielding species, with their geographical and botanical origin, which is the fullest and most accurate to date.

While the most distinctive characteristic of the rubber show was its representation of the planting interest, there was uppermost in the minds of those present the forest rubber of Brazil—the real "Pará" rubber. The conditions of its production, its quality, how far it may be imitated on plantations, and other like questions are of concern to planters whose ambition is to produce something at least as good as native rubber, if not better. The first lectures presented here, therefore, relate to Brazilian rubber—by Mr. N. H. Witt, long in the Amazon trade, and Mr. H. Vasconcollos, special commissioner from Brazil.

Next come eight papers, relating to the present position of rubber cultivation in various countries. Mr. Herbert Wright treated of the Eastern rubber industry in general, Mr. J. B. Carruthers of that in the Malay Peninsula in particular, Sir Daniel Morris dealt with the West Indies, Dr. Olsson-Seffer and the Editor of THE INDIA RUBBER WORLD with Mexico, and M. Henri Jumelle with Madagascar, the latter being a field less known in relation to its rubber resources than almost any other. There are papers dealing with the progress of rubber culture and the extent which it has attained, being followed by a series of nine papers on problems in relation to the cultivation of rubber.

Drs. Frank and Marckwald discussed a new method of coagulation. M. Van den Kerckhove the packing and storing of rubber in the Colonies, Professor F. E. Lloyd the Mexican guayule plant and its product, and so on. Mr. Carruthers discussed "Clean Weeding *versus* Cover Planting," while Mr. Beadle and Dr. Stevens presented an interesting paper on the possible utilization as a material for paper making of the lalang grass, which up to date has proved such a nuisance on Malayan rubber plantations.

The chemistry of india-rubber and allied subjects forms the next division of this book, beginning with Mr. Pearson's "Synthetic Rubber I Have Met." Dr. Spence contributed a study of the latex of rubber-producing plants, Dr. Rudolph Ditmar a paper on the absorption and diffusion of gases by india-rubber and the application of these processes in aerial navigation, and so on. Only four lectures bore directly upon the manufacture of rubber goods, and these belonged in the field of chemistry, with the exception of one by Dr. P. Schidrowitz on the relation of the manufacturer to the consumer.

It is not designed here to review in detail the Rubber Conference Handbook, or even to mention all the items which compose it, but rather to give an idea of the general character of the contents. It should be added that the authors of the various papers are men of distinction in their various fields of work, and that what they have added to the world's knowledge of rubber in this volume is of no little value.

THE CULTIVATION AND PREPARATION OF PARA RUBBER. By W. H. Johnson, F.L.S. - - - Second edition, rewritten and greatly enlarged. - - - London: Crosby, Lockwood & Son. 1909. [Cloth. 8vo. Pp. XII + 178. Price, 7*s.* 6*d.*, net.]

THIS work, in its original form the first book devoted to the cultivation of Pará rubber alone, in the revised edition represents the latest word on the subject. From whatever point of view it does not suffer in comparison with any work on rubber culture; in fact, it rather appears to us to deserve the palm as a practical treatise for planters or those intending to become such. The author, while director of the Gold Coast Colony, West Africa, was commissioned by his government to visit Ceylon to study the methods employed there in the cultivation and preparation of Pará rubber, with a view to its introduction into his colony. Mr. Johnson already had demonstrated that the output of native rubber was on the decline, and it was reasoned that if rubber was to be cultivated, the best species should be planted, if it should be found adapted to West African conditions.

The first edition of this work was the result. It was concluded at the Kew Gardens, where the author dated his preface in September, 1904—before the world had become impressed with the practical character of rubber culture as being developed in the East. Meanwhile Mr. Johnson has accepted the position of director of agriculture for that important region in East Africa controlled by the Companhia do Mocambique—a Portuguese enterprise. Here it is part of his work to supervise both the development of native rubber resources and the introduction of rubber planting; hence he has kept in touch with the progress made in the cultural production of Pará rubber. The preface to this later edition was dated at Beira, East Africa, in December, 1908.

The new book contains about 3½ times as much matter as the first edition, and 33 illustrations instead of 4, as in the former volume. It is thus practically a new work, although the original chapters are retained, subject to revision where this has been rendered necessary by the progress of time. As we have said, this book is eminently practical in character. Where it touches upon points outside the authors personal experience or observation, credit is given for his authorities.

The subjects treated embrace seed selection, seed growing, site for plantation, choice of soils, manuring, planting and care of young plants, pests, collection of latex, coagulation, drying and packing rubber for export, and so on. There are details of yields of rubber, preliminary to detailed estimates for the establishment and maintenance of a Pará rubber plantation, the latter being based upon actual practice in Ceylon and the Federated Malay States. The author evidently regards an average of 2 pounds per tree, 150 trees per acre, as a normal yield from and after the eighth year, without going into the question of the productive capacity of trees beyond eleven or twelve years. The cost of putting rubber on the market is figured at 1*s.* 6*d.*

The illustrations relate mainly to devices or apparatus for extracting latex and preparing rubber for the market. The mechanical side of the subject is of particular interest, since so many of the machines pictured have come into existence since the origin of rubber culture, being designed for this purpose alone.

IN CURRENT PERIODICALS.

LE *Ficus elastica* à Java. Plantation de Bandjaran. By J. Kerbert. [Consideration of the advantages of planting this species as compared with *Hevea Brasiliensis*]=*Journal d'Agriculture Tropicale*, Paris. IX-92. (Feb. 29, '09). Pp. 41-45.

Etude générale sur le *Ficus elastica* (Roxb.). By Georges Vernet.= *Le Caoutchouc et la Gutta-Percha*, Paris. VI-60 (Feb. 15, '09). Pp. 2659-2672.

The Congo Question. By Felix H. Hunicke. [Relates particularly to the conditions—as regards both the Congo government and concessionaire companies—of rubber gathering by the natives; deals to some extent with the American Congo Co.]=*The North American Review*, New York. CLXXXIX-4 (Apr. '09). Pp. 604-614.

News of the American Rubber Trade.

SALE OF THE ATLANTIC RUBBER SHOE FACTORY.

THE factory building at Cranston, near Providence, Rhode Island, erected in 1903 by the Atlantic Rubber Shoe Co., and in which operations ceased in 1904, has been purchased by the Maxwell-Briscoe Motor Co., who have taken possession and are transforming it to suit their purposes. The land, buildings and machinery were purchased at auction November 2, 1906, by William H. Perry, of Providence, for $137,000. The Maxwell-Briscoe Co. take title from Mr. Perry, the consideration stated in the papers being $121,000. A provision that the deed stipulates that the new owners shall not engage in the manufacture of rubber goods.

The Maxwell-Briscoe Co. have factories at Tarrytown, New York, and Newcastle, Indiana, and thus will have three plants in operation for the coming season, when they expect to build 1,000 cars, of an aggregate value of $1,000,000.

REMOVAL OF A RUBBER FACTORY.

THE Flexible Rubber Goods Co., Inc., are removing their plant from Winsted to Salisbury, Connecticut, where they will occupy the old bicycle factory. John E. MacEwen, some time with the Davidson Rubber Co., it is stated, is to be superintendent. The Flexible company recently increased their capital to $35,000. The flexible suction cup shoe and the military rubber horse brush made by the company have already attained a wide reputation at home and abroad. The company are also planning to manufacture an automobile suction tire.

NEW FACTORY CONSTRUCTION.

WORK was started recently on an addition to the premises of the American Hard Rubber Co., at College Point—a three-story brick building 45x95 feet, to be used as a machine shop.

The Rockland Webbing Co. (Rockland, Massachusetts), are enlarging their plant. Work was begun during the month on a two-story addition 70x52 feet.

The Fairfield Rubber Co. (Fairfield, Connecticut) on July 7 opened a new shipping room, which had just been finished.

NEW FIRM IN RUBBER CEMENT.

FRED M. PAGE & Co., Nos. 74-76 Brookline street, Lynn, Massachusetts, have added to their line of shoe findings the manufacture of rubber cement. The company lately purchased the plant of the Hadley Cement Co., and the manufacture of cement by them will be in charge of Albert H. Hadley, who was president of the latter company. Their capacity is mentioned as being from 90 to 125 barrels a day.

UNITED STATES RUBBER CO.—DIVIDEND.

THE directors of the United States Rubber Co., on July 1, declared from net profits the regular quarterly dividend of 2 per cent. on the first preferred shares, and the regular quarterly dividend of 1½ per cent. on the second preferred shares, payable on July 31, to holders of record on July 15.

WOONSOCKET RUBBER CO.—SHUTDOWN.

THE following notice is posted at the Millville factory of the Woonsocket Rubber Co.: "In order to make extensive repairs and alterations it will be necessary to shut down this mill for the month of August. Last day's making Friday, July 30. First day's making on starting Tuesday, September 7."

The employés of the "Alice" mill at Woonsocket are to be given a vacation and the mill will probably be shut down for a period of two weeks, ending with September 7, which is Labor day.

HOOD RUBBER CO.—EXTENSION.

THE Hood Rubber Co. are reported to be planning to manufacture their own requirements in felt, for which purpose another building is to be added to their already large plant, at Watertown, Massachusetts. The valuation of the company's property, for taxation, will probably be more than $1,000,000; last year it was over $900,000. Under a new law which goes into effect this year one-half of the corporation taxes assessed on the stock held by the stockholders go to the town where the corporation is in business, so that Watertown has an additional reason for interest in the growth of the Hood factory.

UNITED STATES RUBBER CO.'S ISSUES.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending July 24:

COMMON STOCK.

Week July 3....	Sales	550 shares	High	38¾	Low	38½
Week July 10....	Sales	600 shares	High	38	Low	38
Week July 17....	Sales	1,000 shares	High	39	Low	38¼
Week July 24....	Sales	1,200 shares	High	39¼	Low	38¼

For the year—High, 42½, June 4; Low, 27, Feb. 24.
Last year—High, 37½; Low, 17½.

FIRST PREFERRED STOCK.

Week July 3....	Sales	650 shares	High	116½	Low	115½
Week July 10....	Sales	900 shares	High	117¾	Low	117¼
Week July 17....	Sales	2,540 shares	High	118	Low	115¼
Week July 24....	Sales	1,354 shares	High	117⅛	Low	116¾

For the year—High, 118¼, June 7; Low, 98, Jan. 29.
Last year—High, 108; Low, 76.

SECOND PREFERRED STOCK.

Week July 3....	Sales	500 shares	High	82½	Low	82
Week July 10....	Sales	—— shares	High	——	Low	——
Week July 17....	Sales	400 shares	High	84¾	Low	83½
Week July 24....	Sales	150 shares	High	83	Low	83

For the year—High, 85, June 4; Low, 67½, Feb. 25.
Last year—High, 75¼; Low, 42.

SIX PER CENT. CERTIFICATES.

Week July 3....	Sales	54 certs.	High	105½	Low	105
Week July 10....	Sales	47 certs.	High	105⅝	Low	105¼
Week July 17....	Sales	38 certs.	High	105½	Low	105
Week July 24....	Sales	70 certs.	High	106	Low	105⅞

TRADE NEWS NOTES.

THE National India Rubber Co. (Bristol, Rhode Island), were the successful bidders for rubber insulated lead covered underground cables for the city of Buffalo, New York, to be used for putting underground the cables of the fire and police departments. The amount of their bid was $40,433.05.

It is announced that a Montreal syndicate headed by Mr. D. Lorne McGibbon, president of the Canadian Consolidated Rubber Co., Limited, have acquired 100,000 shares in the La Rose Consolidated Mines Co., in Canada, giving rise to the suggestion that Mr. McGibbon would join the board of directors.

The Pennsylvania Rubber Co. (Jeannette, Pa.) have arranged for the insurance of all inner tubes of their make which go into use in Pennsylvania casings this year, the insurance to cover all damage except such as may result from tires being driven deflated.

The Firestone Tire and Rubber Co. (Akron, Ohio) are opening a branch at Seattle, Washington, at No. 918 East Pike street, under the management of E. L. Campion. This is the tenth branch established by the company, in addition to the 25 general distributing agencies for Firestone tires and demountable rims.

A convention of branch managers of the Ajax-Grieb Rubber Co. was held at the factory, at Trenton, New Jersey, July 28-31. It was attended by representatives of the company from as far west as Seattle and San Francisco.

The *Gummi-Zeitung* reports: "We have been informed that Dr. Hugo Herzfelder intends to resign his office as chief superintendent of the Actiengesellschaft für Luftlos-Elastische Fahrzeugbereifung (Airless Elastic Vehicle Tire Co.), and to utilize his process for his own account. Dr. Herzfelder, who has been engaged for the past fifteen years in practical work, was employed during four years in American rubber works."

NEW INCORPORATIONS.

CENTRAL CITY RUBBER CO., July 13, 1909, under the laws of New York, capital $50,000. Incorporators: David A. Gould (No. 129 East Water street), John R. Graham, George H. Lyold, A. Park Sager, and Daniel A. Pierce, all of Syracuse, New York.

Mechanical Rubber and Cable Co., July 23, 1909, under the laws of Connecticut; capital, $30,000. Incorporators: William J. Brown, R. Frederic Dunham, and Peter A. Sharp, all of Bridgeport, Connecticut.

United Rubber Co., June 26, 1909, under the laws of Ohio; authorized capital, $200,000. Incorporators: James Christy, W. W. Wildman, M. S. Long, J. W. Miller, and Will Christy, all of Akron, Ohio. James Christy has been elected president, J. W. Miller vice-president, S. E. Conner secretary and treasurer, and W. W. Wildman general manager. The company expect to engage in the rubber reclaiming business on a large scale, succeeding the Aladdin Rubber Co.

McTernen Rubber Co., June 24, 1909, under the laws of Maine; capital, $1,500,000. Incorporators: William H. Gulliver, William E. Cullinan, C. F. Tennant, and Clarence E. Burdin, all of Portland, Maine. Clarence E. Eaton is mentioned as president, C. F. Tennant, treasurer, and W. H. Gulliver clerk.

Colonial Rubber Works, July 13, 1909, under the laws of Illinois; capital, $7,000. Directors: Henry Nyberg, Everett McConnell, and Emerson McConnell. Principal office: No. 2436 Michigan avenue, Chicago.

TRADE NEWS NOTES.

THE Hartford Rubber Works Co. have adopted the Dow standard demountable rim, which they will market in connection with their Hartford Automobile tires. This rim is extremely neat in appearance and is operated by a key which loosens the rim from the felloe, when the tire and rim can be lifted off without difficulty.

While the bulk of the estate of the late Robert D. Evans was bequeathed to his widow, provision was made for his nephew, Rene Evans Paine, who for many years acted as Mr. Evans's private secretary.

The manufacturers of rubber tires have issued revised lists of prices, which took effect on July 16. The advance ranges from 15 to 25 per cent.

Mr. H. G. Nicholls, for several years assistant general manager of the Canadian General Electric Co., has resigned that position in order to go into business for himself. He has organized a company called Factory Products, Limited, in Toronto, for the purpose of acting as Canadian selling agents for representative manufacturers.

The Consolidated Canadian Rubber Co., Limited, are authoritatively stated to have done particularly well during the half year ended June 30, with earnings at the rate of 30 per cent on the common stock, after providing for all expenses, fixed charges, and preferred dividends.

Mr. Henry H. Holland, manager of the London office of the United States Rubber Co., was on a visit to the United States during July. He reports the outlook of the company's business in Europe for the coming season as very bright.

The only rubber company whose exhibit at the First World's Shoe and Leather Fair, in Boston, was ready at the opening was the Hood Rubber Co. This display was complete and fully lighted when the exhibition building was opened to the public on the evening of July 1.

The Kensington Association Institute, of Philadelphia, announces the opening in October of the School of Industry and Chemistry. The lectures and laboratory work will be limited to organized chemistry, and will be carried on in four departments, one of which is the chemistry of rubber and forest products. The work in this department will include the study of the raw materials, and process and products characteristic of the rubber industry. The instruction will consist, in the main, of laboratory work supplemented by reading and lectures, with the aid of the best German and American text books. Further information can be obtained by applying to the director, Dr. Frederic Danneth, No. 204 Walnut Place, Philadelphia.

Parker R. Bradley, of No. 51 Johnson street, Newark, New Jersey, who was formerly a manufacturer of imitation leathers, is now devoting himself to the manufacture of leather from hides.

The Essex Rubber Co. (Trenton, New Jersey) are erecting a two-story addition to their plant on May and Beakes streets—of brick and iron construction, 30x85 feet.

The American Asphaltum and Rubber Co. have purchased a large amount of real estate in Chicago lately—a tract 137 x 1,026 feet, on which is a brick factory, and a vacant lot 137 x 121 feet.

Mr. Lucius L. Torrey, president of the Pennsylvania Rubber Co., of San Francisco, made a visit to the east during July, which he extended as far as Massachusetts.

Mr. Carl P. Cartmell, connected for some time past with the Derby Rubber Co., and widely known in the trade, has joined the sales department of the Victor Rubber Co. (Springfield, Ohio).

In the matter of Pneu l'Electric Co. (New York), bankrupt [see THE INDIA RUBBER WORLD, April 1, 1909—page 256], the referee in bankruptcy announces the declaration of the first dividend out of the estate, of 5 per cent. upon claims proved and allowed.

CHARLES R. FLINT AND THE NEW YORK MAYORALTY.

AN interview with Justice Gildersleeve, of the New York Supreme Court, who is spending a vacation in London, cabled to the New York *Times*, relates to municipal politics in New York. Speaking of the mayoralty, he is quoted as saying:

"Charles R. Flint is another good man for the mayoralty [he had previously mentioned J. Pierpont Morgan], possessing broad ideas, great business experience and excellent ability in finance. He is practical, aggressive and honest, of the right age, writes ably on economics, and would make a fine mayor. He is wealthy and could afford to make the material sacrifice which the fulfillment of the duties of the office would involve."

GEORGE C. SANBORN.

GEORGE C. SANBORN, who died in Chicago on June 28, had been for a number of years interested in rubber culture in Mexico. The organization of the Mexican Mutual Planters' Co. was due chiefly to his interest and confidence in the future of the rubber supply, and he was its president and a director from the beginning. The company formed and now owns the plantation "La Junta," in Vera Cruz, one of the most important rubber undertakings in Mexico.

PERSONAL MENTION.

MR. HANS ANGELL KOPP, who is in business with his father, Julius Kopp, dealer in india-rubber goods at Copenhagen, Denmark, with branches in other Skandinavian cities, was a visitor to the United States during the past month. Julius Kopp once lived in New York and became an American citizen, afterward serving as lieutenant in the Twenty-eighth New York Volunteers during the civil war. The house of Kopp since 1882 have represented the Goodyear's India-Rubber Glove Manufacturing Co. in Denmark. Another son of Mr. Kopp is an electrical engineer who has made some inventions of importance in wireless telephony, and is now connected with the Collins Wireless Telephone Co. (Newark, New Jersey).

REFERRING to the contention of some rubber planters that the expense of clean weeding can be avoided by encouraging the growth of certain weeds which keep other and less desirable growths in subjection, the *Tropical Agriculturist* suggests: "More water evaporates from a soil covered with plants than from a naked tilled soil, so that in dry places the clean weeding is probably the better."

POOR RESULTS IN LIBERIA.

THE successes attained by the rubber planting companies organized in the British empire do not seem to be repeated in the case of any of the companies organized with British capital to exploit forest rubber in any country. The latest disappointment of moment in this respect has to do with The Liberian Rubber Corporation, Limited, floated a few years ago with a capital of £270,000. [See THE INDIA RUBBER WORLD, January 1, 1906—page 124; February 1, 1906—pages 146, 147.] Sir Henry H. Johnson, G. C. M. G., the African authority, who was largely instrumental in the organization of this company, has since retired from the board. But he attended the third annual meeting (London, July 9), and encouraged the shareholders to look for better results than have been secured thus far. The gross output of rubber in 1908 was 182,578 pounds, which was stated to be an increase for the year of nearly 37,000 pounds. The business had been done at a loss, however, partially because rubber sold during the year for a shilling per pound less than was anticipated, and the company's work had been interfered with by the disturbances in Liberia. The gross profit was £10,100, or £2,300 less than in 1907, but there was again a net loss. But Sir Harry pointed out that Liberian affairs are quieting, and rubber prices have advanced again. Considerable *Funtumia* rubber has been planted by the company, but this variety, although planted successfully in other regions, does not seem adapted to Liberia, and the company have begun replanting with *Hevea Brasiliensis*.

ANOTHER SYNTHETIC RUBBER CO.

THE Consolidated Rubber Co., Limited, registered in London, July 5, 1909, with £164,000 [=$798,106] capital, has for its objects to adopt an agreement between Arthur Heinemann and others for the acquisition of a process for the synthetical production of rubber, including his patents granted and pending, and plant used in connection therewith, and to carry on the production of gases or liquids used in connection with the production of isoprene and like substances, or any of the terpenes capable of being made in the production of india-rubber or substitutes therefor. A British patent granted to Heinemann for the production of synthetic rubber is No. 21,772 (1907). The registered office of the company is at 196, Palmerston house, 34 Old Broad street, E. C., London.

This company has no relation to the Synthetic Rubber Co., Limited, at the third annual meeting of which recently in London it was explained that while no commercial result had followed their large expenditure to date, the company felt that it was "in possession of a well-defined process for producing synthetic rubber," and they were confident of ultimate commercial success.

THEFT OF GUAYULE RUBBER.

MEXICAN newspapers report the arrest at a guayule rubber factory near Zacatecas of one of its employés, charged with the theft of rubber produced there. It is alleged that this was done for the benefit of a rival factory, with a view to revealing the secrets of manufacture by the concern employing him. He is said to have received regularly $200 a month from the rival company, in addition to his regular compensation. The *Mexican Herald* says:

"The crime in question recalls the fact that, while most of the guayule produced is prepared under patented processes, whose details are common knowledge, a great many manufacturers of the gum keep certain elements of their extraction methods secret and take every precaution to preserve them so, and in the past there has been great activity among the owners of 'wildcat' plants to possess themselves of the secrets of the larger companies. In certain guayule districts it is commonly considered easier for an intelligent person to take a fortress single handed than to gain access to a rubber extracting plant."

WHITTELSEY ON GUAYULE.

DR. THEODORE WHITTELSEY, of Northwestern University, at Evanston, Illinois, spent last year in experimental work on guayule, at the plant of the Continental-Mexican Rubber Co. He has written two papers on the subject, reprints of which from the *Journal of Industrial and Engineering Chemistry* (Vol. 1, No. 4—April, 1909) have reached us. The second is devoted to "Distribution of Rubber in Different Parts of the Shrub." At the April meeting of the Chicago section of the American Chemical Society the programme was: "Production of Guayule Rubber in Northern Mexico"—illustrated lecture by Dr. Whittelsey, followed by discussion.

CARE OF HOT WATER BOTTLES.—A writer in *Canadian Druggist*, who seems to think that the average purchaser does not take the proper care of a hot water bottle, advises packing with each bottle a printed slip containing suitable instructions.

Review of the Crude Rubber Market.

THE state of the market at New York is difficult to comment upon at this time, for the reason that quotations for so many grades are merely nominal. In other words, stocks of some important grades are non-existent. Actual business has been done at last reports at 43 cents a pound for Upriver fine above our quotations of one month ago, and 41 cents higher for Islands rubber. Higher quotations are made, however, in answer to inquiries, with a view to prospective higher costs in primary markets. An indication of the tendency of the market is found in the fact that at the Antwerp auctions on July 29 the average advance over the June sales was 1.50 francs per kilogram; and at the Havre sale on July 27, there was a average advance of 12 *centimes*. An advance occurred in all grades including the better Africans, but not in the same proportion as for Pará sorts. Quotations have been made as high as $2 for plantation crepe, but business has not been done in New York at so high a figure. While the statistics of arrivals at Pará for the crop year 1908-09 vary slightly, as reported from different sources, it appears that the last crop was slightly larger than in any previous year. We have these figures: 34,490 tons for 1905-06; 38,005 tons for 1906-07; 36,650 tons for 1907-08; and 38,065 tons for 1908-09. From the latest Manáos statistics it appears that the arrivals of rubber for the crop year were slightly less than last year, and less by more than 1,000 tons than two years ago. The increased total arrivals at Manáos were made up of a gain of 1,300 tons in caucho, and the increase at Pará is similarly due to more caucho being received than formerly. Final analysis, therefore, probably will show less fine rubber received during the crop year than in some former years. Our mail advices from Pará report: "Entries continue on a moderate scale and are eagerly caught up at quickly advancing prices; it is, however, the general impression that the wild jumps of the market will come to a stop with the gradually increasing arrivals of *sertao* [Upriver] at Manáos."

An addition of the monthly reports of exports of rubber from Pará published regularly in THE INDIA RUBBER WORLD gives the following distribution of the whole for the crop year ended June 30, 1909, expressed in pounds:

To the United States	42,115,240
To England and the Continent	42,156,706
Total	84,271,946

It will be seen thus that just one-half of the whole was exported direct to New York. But THE INDIA RUBBER WORLD has also reported every month considerable arrivals of Pará rubber via Europe, which means that material in the first instance shipped across the Atlantic ultimately is consumed in America. Such arrivals during the year ended June 30 aggregated 8,000,000 pounds, which permits the following corrected statement of distribution to be made:

To the United States	50,115,240
To Europe	34,156,706
Total	84,271,946

This indicates 60 per cent. of the total output from Pará as ultimately reaching the United States. It should be mentioned, however, that the supplies for Canada are derived from this country.

Following are the quotations of New York for Parâ grades, one year ago, one month ago, and July 30—the current date:

PARA.	Aug. 1, '08.	July 1, '09.	July 30.
Islands, fine, new	83@84	140@141	@181
Islands, fine, old	—@96	143@144	@185
Upriver, fine, new	91@92	147@148	@195
Upriver, fine, old	94@95	149@150	@198
Islands, coarse, new	42@43	68@ 69	@ 75
Islands, coarse, old	none here	71@ 72	@ 78
Upriver, coarse, new	64@65	104@105	@120
Upriver, coarse, old	65@66	none here	none here
Cametá	.....	80@ 81	@ 92
Caucho (Peruvian), ball	49@50	94@ 95	@112
Caucho (Peruvian), sheet	60@61	80@ 81	@ 90
Ceylon (Plantation), fine sheet	104@105	155@156	@200
AFRICAN.	**Aug. 1, '08.**	**July 1, '09.**	**July 30.**
Lopori ball, prime	80@81	110@111	@125
Lopori strip, prime	62@63	...@...	@120
Aruwimi	.....	...@100	@115
Upper Congo ball, red	.....	104@105	@123
Ikelemba	none here	...@...	@...
Siera Leone, 1st quality	78@79	106@107	@125
Massai, red	78@79	106@107	@125
Soudan niggers	54@55	101@102	@118
Cameroon ball	47@48	74@ 75	@108
Benguela	44@45	67@ 68	@ 80
Madagascar, pinky	64@65	98@ 99	@104
Accra flake	15@16	22@ 23	@ 24
CENTRALS.			
Esmeralda, sausage	61@62	90@ 91	@ 98
Guayaquil, strip	45@46	77@ 78	@ 85
Nicaragua, scrap	59@60	87@ 88	@ 97
Panama	44@45	67@ 68	@ 88
Mexican, scrap	60@61	89@ 90	@ 98
Mexican, slab	42@43	65@ 66	@ 85
Mangabeira, sheet	44@45	61@ 62	@ 66
Guayule	25@26	34@ 35	@ 40
EAST INDIAN.			
Assam	72@73	95@ 96	95@ 96
Pontianak	.....	4¾@ ..	@4¾
Borneo	26@27	35@ 45	@ 40

Late Parà cables quote:

	Per Kilo.		Per Kilo.
Islands, fine	8$700	Upriver, fine	10$600
Islands, coarse	3$200	Upriver, coarse	8$000
		Exchange	15 5/32*d.*

Latest Manâos advices:

Upriver, fine	11$000	Exchange	15 5/32*d.*
Upriver, coarse	6$500		

NEW YORK RUBBER PRICES FOR JUNE (NEW RUBBER).

	1909.	1908.	1907.
Upriver, fine	1.35@1.51	.88@.94	1.08@1.12
Upriver, coarse	.98@1.05	.62@.65	.86@ .88
Islands, fine	1.31@1.42	.84@.89	1.04@1.10
Islands, coarse	.67@ .70	.43@.46	.61@ .63
Cametá	.78@ .82	.53@.56	.70@ .71

Statistics of Para Rubber (Excluding Caucho).

	NEW YORK. Fine and Medium.	Coarse.		Total 1909.	Total 1908.	Total 1907.
Stocks, May 31...*tons*	60	41	=	101	370	369
Arrivals, June	887	662	=	1549	1324	726
Aggregating	947	703	=	1650	1694	1095
Deliveries, June	744	514	=	1258	1347	792
Stocks, June 30	203	189	=	392	347	303

	PARA. 1909.	1908.	1907.	ENGLAND. 1909.	1908.	1907.
Stocks, May 31.....*tons*	555	635	605	600	1595	1060
Arrivals, June	1040	1220	1070	545	987	565
Aggregating	1595	1855	1675	1145	2582	1625
Deliveries, June	1350	1482	1505	825	1347	675
Stocks, June 30	245	373	170	320	1235	950

	1909.	1908.	1907.
World's visible supply, June 30.....*tons*	1,490	2,854	2,223
Pará receipts, July 1 to June 30	30,080	29,640	31,530
Pará receipts of Caucho, same dates	8,000	6,950	6,340
Afloat from Pará to United States, June 30	88	371	240
Afloat from Pará to Europe, June 30	445	528	560

New York.

IN regard to the financial situation, Albert B. Beers (broker in crude rubber and commercial paper, No. 68 William street, New York), advises as follows: "There has been practically no change in the commercial paper situation during July, the best rubber names bring taken at 4¼@4¾ per cent., and those not so well known at 5@5½ per cent."

African Rubbers.

NEW YORK STOCKS (IN TONS).

January 1, 1908	156	November 1, 1908	134
February 1	224	December 1	179
March 1	123	January 1, 1909	156
April 1	201	February 1	157
May 1	165	March 1	200
June 1	446	April 1	178
July 1	334	May 1	268
August 1	145	June 1	156
September 1	133	July 1	268
October 1	134		

Liverpool.

WILLIAM WRIGHT & CO. report [July 1]:

Fine Pará.—With a good demand from the trade here, supplemented by a continuance of demand from America (American shipments from here are about 425 tons), a strong advance in prices resulted; in fact, a new record was created, Upriver fine touching 6*s.* 3*d.* [= $1.48] per pound, highest previous price being 5*s.* 9½*d.* [= $1.41]. This advance was doubtless due partly to speculation, but mainly by trade requirements, manufacturers on this side having run themselves bare of stock. As far as can be seen at present the American demand is likely to continue, and in view of small receipts during the next few months, a further advance in value is quite probable. For delivery a good business done, and although a considerable discount on spot values has been offered, there have been ready buyers at the reduction in price right up to the end of the year, which seems to indicate a new high level of prices.

Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—show an advance since last month:

Old rubber boots and shoes—domestic	11 @11⅛
Old rubber boots and shoes—foreign	10 @10¾
Pneumatic bicycle tires	6⅜@ 6½
Automobile tires	6⅜@ 6½
Solid rubber wagon and carriage tires	8½@ 9
White trimmed rubber	9½@10
Heavy black rubber	6 @ 6¼
Air brake hose	4¼@ 4½
Garden hose	2¾@ 2⅞
Fire and large hose	3½@ 3⅝
Matting	1½@ 1⅝

SEND for a free copy of the Index to the new edition of Mr. Pearson's "Crude Rubber and Compounding Ingredients," just out, at THE INDIA RUBBER WORLD office.

Antwerp.

RUBBER STATISTICS FOR JUNE.

DETAILS.	1909.	1908.	1907.	1906.	1905.
Stocks, May 31..*kilos*	689,238	771,577	752,914	725,251	347,104
Arrivals in June.....	430,074	461,063	296,779	298,358	540,911
Congo sorts	273,079	397,745	256,350	203,562	453,418
Other sorts	156,995	63,318	40,429	94,796	87,493
Aggregating	1,119,312	1,232,640	1,049,693	1,023,609	888,015
Sales in June.....	642,892	547,774	377,900	404,775	305,029
Stocks, June 30.....	476,420	684,866	671,793	618,834	582,986
Arrivals since Jan. 1..	2,403,504	2,605,825	2,578,734	3,026,806	2,761,199
Congo sorts	1,716,209	2,257,536	2,194,578	2,313,641	2,211,067
Other sorts	687,295	348,289	384,156	713,165	550,132
Sales since Jan. 1....	2,522,819	2,927,853	2,565,125	3,143,159	2,719,574

RUBBER ARRIVALS FROM THE CONGO.

JUNE 14.—By the steamer *Bruxellesville*:

Bunge & Co.	(Société Générale Africane)	*kilos*	141,000
do	(Comptoir Commercial Congolais)		27,800
do	(Société Abir)		1,000
do	(Société Anveroise)		3,100
do	(Chemins de fer Grands Lacs)		10,300
do	(Umangi)		300
Société Coloniale Anveroise.....	(Belge du Haut Congo)		21,500
do	(Cie. du Lomami)		5,450
do	(Société Ikelemba)		300
do	(Sud Cameron)		5,400
do			400
L. & W. Van de Velde.	(Cie. du Kasai)		75,000
Charles Dethier	(American Congo Co.)		2,000 293,550

RUBBER ARRIVALS FROM THE CONGO.

JULY 5.—By the steamer *Albertville*:

Bunge & Co.	(Société Générale Africane)	*kilos*	132,000
"	(Comité Special Katanga)		6,500
"	(Comptoir Commercial Congolais)		30,000
"	(Société Abir)		10,000
"	(Cie. du Kasai)		72,500
"	(Chemins de fer Grands Lacs)		4,200
Société Coloniale Anversoise.....	(Belge du Haut Congo)		6,500
"	(Cie. du Lomami)		9,300
"			8,300
"			12,100
M. S. Cols.			800
Cassart & Henrion.			1,300
L. & W. Van de Velde.			2,000 295,500

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weights in Pounds.]

JUNE 24.—By the steamer *Crispin*, from Mánáos and Pará:

IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total.
New York Commercial Co...	58,700	40,100	41,000	68,200=	208,000
A. T. Morse & Co.....	44,400	6,700	45,000	.....=	96,100
Hagemeyer & Brunn.....	17,400	.....	65,100	.....=	82,500
Poel & Arnold.....	10,600	1,700	36,800	2,100=	51,200
Edmund Reeks & Co.....	5,000	.....	6,000	.....=	11,000
General Rubber Co.....	3,600	.....	2,000	.....=	5,600
Total	139,700	48,500	195,900	70,300=	454,400

JULY 6.—By the steamer *Cuthbert*, from Manãos and Pará:

New York Commercial Co.....	23,100	12,900	25,900	94,800=	156,700
C. P. dos Santos.....	15,700	3,400	9,600	21,000=	49,700
A. T. Morse & Co.....	23,900	.....	17,200	.....=	41,100
Hagemeyer & Brunn.....	8,600	300	28,900	.....=	37,800
Poel & Arnold	17,700	6,900	4,700	600=	29,900
General Rubber Co.....	2,100	700	700	.....=	3,500
G. Amsinck & Co.....	.....	.....	.....	3,700=	3,700
Total	91,100	24,200	87,000	120,100=	322,400

JULY 14.—By the steamer *Maranhense*, from Manáos and Pará:

Poel & Arnold.....	87,000	4,300	20,500	2,300=	114,100
A. T. Morse & Co.....	27,800	2,200	52,800	....=	82,800
Hagemeyer & Brunn.....	29,300	700	52,800	....=	82,800
New York Commercial Co....	12,800	12,300	24,300	700=	50,300
Edmund Reeks & Co.....	3,600	300	17,200	....=	21,100
General Rubber Co.....	3,300	300	7,200	....=	10,800
Total	163,800	20,100	175,000	3,000=	361,900

[NOTE.—The steamer *Justin*, from Pará, with about 200 tons of rubber, was due at New York on July 28.]

PARA RUBBER VIA EUROPE.

		POUNDS.
JUNE 24.—By the *Grenada*=Bolivia:		
Genl. Expt. Com. Co. (Fine)	36,000	
do. (Coarse)	26,000	
America Trading Co. (Fine)	5,500	
do. (Coarse)	2,500	70,000
JUNE 26—By the *Augusta Victoria*=Hamburg:		
George A. Alden & Co. (Coarse).....		7,000
JUNE 28.—By the *Celtic*=Liverpool:		
New York Commercial Co. (Fine)....		22,500
JULY 1.—By the *Caronia*=Liverpool:		
Poel & Arnold (Fine).....		125,000
JULY 1.—By the *Thorsa*=Ciudad Boliyar:		
Genl. Expt. Trad. Co. (Fine)	30,000	
do. (Coarse)	18,000	
American Trading Co. (Fine)	15,000	
do. (Coarse)	15,000	
R. Fabien & Co.	3,500	81,500
JULY 2.—By the *Pennsylvania*=Hamburg:		
A. T. Morse & Co. (Fine)...	33,500	
Rubber Trading Co. (Fine).	11,000	44,500
JULY 3.—By the *Lucania*=Liverpool:		
N. Y. Com. Co. (Fine).....		5,000
JULY 12.—By the *Baltic*=Liverpool:		
N. Y. Commercial Co. (Fine).....		13,500
JULY 14.— By the *Prinz Wilhelm*=Mollendo:		
W. R. Grace & Co. (Concho).....		19,000
JULY 14.—By the *Carmania*=Liverpool:		
Poel & Arnold (Fine).....		50,000
JULY 17.—By the *Campania*=Liverpool:		
Livesey & Co. (Concho).....		5,000

OTHER NEW YORK ARRIVALS.

CENTRALS.

[*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

	POUNDS.
JUNE 23.—By the *El Valle*=Galveston:	
Continental-Mexican Rubber Co.....	*110,000
JUNE 24.—By the *Magdalena*=Colon:	
Seanz & Co.	5,000
G. Amsinck & Co.	3,000
Isaac Brandon & Bros.	2,000
Jose Julia & Co.	1,000 11,000
JUNE 25.—By the *Mexico*=Frontera:	
Harburg & Stack	7,000
E. Steiger & Co.	3,000
R. Fabein & Co.	3,000
General Export and Com. Co.	2,500 15,500
JUNE 25.—By the *El Mar*=Galveston:	
Ed Boehringe	*33,500
JUNE 26.—By the *Advance*=Colon:	
J. S. Sambrade	2,000
Cabello & Blancho	1,500
Henry Mann & Co.	1,000
JUNE 28.—By the *Minnetonka*=London:	
W. L. Geough Co.	11,500
JUNE 28.—By the *El Norte*=Galveston:	
Continental-Mexican Rubber Co.....	*150,000
JUNE 28.—By the *Antilles*=New Orleans:	
A. T. Morse & Co.	10,000
G. Amsinck & Co.	1,000
Egger & Heinlein	1,500 12,500
JUNE 28.—By the *Caronia*=Liverpool	
Robinson & Co.	11,500
JUNE 30.—By the *Allianca*=Colon:	
L. Johnson & Co.	3,500
G. Amsinck & Co.	3,500
A. Rosenthal's Sons	3,000
Roldan & Van Sickle	2,500
Demarest Bros.	2,500
Pablo-Calvert Co.	2,000
Hirzel, Feltman & Co.	1,500
J. S. Sambrade	1,500
Elias & Abdos	1,500
Mecke & Co.	1,000
Henry Mann	1,000
Isaac Brandon & Bros	1,000 24,500
JULY 1.—By the *Yumuri*=Tampico	
Ed Maure	*65,000
New York Com. Co.	*65,000
Continental-Mexican Rub. Co.	*65,000
Poel & Arnold	*45,000
Remsch & Helde	*45,000 *285,000
JULY 1.—By the *Caronia*=Liverpool:	
Poel & Arnold	7,000
JULY 2.—By the *Antilla*=Tampico:	
Ed. Maurer	*110,000
New York Commercial Co..	*55,000 *165,000
JULY 2.—By the *Prinz Frederick*=Savanilla:	
Maitland, Coppell & Co.	2,500
A. Held	2,500 5,000
JULY 3.—By the *Monterey*=Frontera:	
Harburger & Stack	6,500
E. Steiger & Co.	1,500
Graham-Hinkley Co.	1,000
H. Marquardt & Co.	1,000
Interior Ports	3,000 13,000
JULY 6.—By the *Verdi*=Bahia:	
J. H. Rossbach Bros.	20,000
JULY 6.—By the *Colon*=Colon:	
Piza, Nephews & Co.....	7,000
Isaac Brandon & Bros.	6,000
G. Amsinck & Co.	2,000
Hy. Mann & Co.	2,000
Roldan & Van Sickle	2,000
Demarest Bros. Co.	1,000 20,000
JULY 7.—By the *El Dia*=Galveston:	
Ed Boehringe	*45,000
JULY 7.—By the *Carib II*=Truxillo:	
Eggers & Heinlein	5,500
H. W. Peabody & Co.	1,000 6,500
JULY 7.—By the *Comus*=New Orleans:	
A. T. Morse & Co.	2,500
A. N. Rotholz	1,500
L. Stern & Co.	1,500
Manhattan Rub. Mfg. Co. ..	2,000 7,500
JULY 12.—By the *Cienfuegos*=Tampico:	
Ed Maurer	*100,000
Poel & Arnold	80,000
N. Y. Commercial Co.	*35,000 *215,000
JULY 14.—By the *Prinz Wilhelm*=Colon:	
A. Rosenthal's Sons	4,000
Jose Julia & Co.	4,000
Isaac Brandon & Bros.	2,000
Pablo, Calvet Co.	1,500
Henry Mann & Co.	1,500
Elmenhorst & Co.	1,500
Suzarte & Whitney	1,000 15,500
JULY 17.—By the *Morro Castle*=Frontera:	
Harburger & Stack	10,000
E. N. Tibbals & Co.	1,000
Mexican Products Co.	1,000
H. Marquardt & Co.	1,000 13,000
JULY 19.—By the *Antilles*=New Orleans:	
Eggers & Heinlein	2,500
JULY 19.—By the *Cameons*=Bahia:	
Poel & Arnold	56,000
A. Hirsch & Co.	45,000
New York Commercial Co...	25,000
J. H. Rossback & Bros	27,000 153,000
JULY 19.—By the *Advance*=Colon:	
G. Amsinck & Co.	5,500
Hirzel, Feltman & Co.	5,000
J. S. Sambrade	3,500
Pablo, Calvet Co.	1,500
Wessels, Kulenkamp Co.	1,500
Mecke & Co.	1,000

RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

No. 48. For fluxing pigments in compounding. A valuable adjunct to the manufacture of moulded goods as it DOES NOT BLOW UNDER CURE.

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HYDRO-CARBON

One that under chemical analysis tests 99.84 per cent. pure; that runs absolutely uniform in quality; that did not oxidize when subjected to the elements for three years on the roof of our factory, although the iron pan in which it was placed was so affected that nothing but a few scales of rust was left; besides, the pan became so "rubbery" that the cakes of Hydro-carbon were not affected by the sun's rays, in the way of causing them to melt and lose their original shape, though the test lasted three summers. With the temperature at 4° F. the material has practically the same degree of flexibility as in midsummer. It works best in compounding on red hot mill rolls, not sticking as mixed or blended Hydro-carbons do, but instead is absorbed readily by the compound; its use tends to decrease the time necessary to mill a batch, in addition to which it is rich in hydrogen and adds that element to a shoddy which is necessary to insure perfect revulcanization. It is a direct aid to stocks run through a tubing machine and assists in calendering. Finished goods of which it is a part feel more "rubbery" and have longer life than goods made without it.

"Pretty near ideal," you say. Yes, but our MALTHA Hydro-carbon is doing this for some of the largest rubber manufacturers in this country every day. May we not send you a free working sample to try out and prove it for yourself? Write to-day.

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Largest Producers of Guayule Rubber, Operating Nine Factories.

American Trading Co.	1,000	
Henry Mann & Co.	1,000	
Demarest Bros Co.	1,000	
L. Johnson & Co.	1,000	22,000
JULY 20.—By the *Julia*=Maracaibo:		
Roe, Gallega & Co.	3,500	
Meilenck & Harmas	2,500	6,000
JULY 21.—By the *Siberia*=Greytown:		
G. Amsinck & Co	5,500	
Suzarte & Whitney	2,000	
United Fruit Co.	1,000	
Brandon & Bros.	2,000	10,500
JULY 22.—By the *El Alba*=Galveston:		
Continental-Mexican Co.	*110,000	
JULY 23.—By the *Allianca*=Colon:		
L. Johnson & Co.	1,500	
Henry Mann & Co	1,000	
G. Amsinck & Co.	1,000	
Wessels, Kulenkamp Co.	1,000	4,500
JULY 23.—By the *Hugin*=Tampico:		
Ed Maurer	*145,000	
Continental-Mexican Co.	*35,000	*180,000
JULY 23.—By the *Mexico*=Frontera:		
Harburger & Stack	4,500	
E. Steiger & Co.	3,500	
A. Klipstein & Co.	3,000	
Roldan & Van Sickel	2,000	
H. Marquardt & Co.	1,500	14,500

AFRICAN.

	POUNDS.	
JUNE 24.—By the *President Grant*=Hamburg:		
Poel & Arnold	15,000	
A. T. Morse & Co.	22,500	
George A. Alden & Co.	15,000	
Rubber Trading Co.	4,500	
JUNE 28.—By the *Mariz*=Lisbon:		
General Rubber Co.	56,000	
Poel & Arnold	22,500	
JUNE 28.—By the *Celtic*=Liverpool:		
Livesey & Co.	6,500	
George A. Alden & Co.	2,500	
JUNE 26.—By the *Augusta Victoria*=Hamburg:		
A. T. Morse & Co.	22,500	
George A. Alden & Co.	8,000	
General Rubber Co.	7,000	
Rubber Trading Co.	4,500	
JUNE 30.—By the *Caronia*=Liverpool:		
Poel & Arnold	67,000	
Rubber Trading Co.	9,000	
H. A. Gould Co.	9,000	
Livesey & Co.	7,000	
JULY 2.—By the *Pennsylvania*=Hamburg:		
A. T. Morse & Co.	50,000	
General Rubber Co.	13,500	
George A. Alden & Co.	8,000	
W. L. Gough Co.	2,000	73,500
JULY 3.—By the *Savoie*=Havre:		
George A. Alden & Co.		22,500
JULY 6.—By the *Cedric*=Liverpool:		
Livesey & Co.		7,000
JULY 6.—By the *Kroonland*=Antwerp:		
Poel & Arnold	11,000	
A. T. Morse & Co.	7,000	
W. L. Gough Co.	5,000	
W. H. Stiles & Co.	3,500	26,500
JULY 8.—By the *President Lincoln*=Hamburg:		
Poel & Arnold	50,000	
George A. Alden & Co.	1,500	
A. T. Morse & Co.	11,000	
W. L. Gough & Co.	8,000	84,000
JULY 12.— By the *Touraine*=Havre:		
George A. Alden & Co.	4,500	
Joseph Cantor	4,500	9,000
JULY 12.—By the *Baltic*=Liverpool:		
George A. Alden & Co.		26,000
JULY 12.—By the *Cincinnati*=Hamburg:		
A. T. Morse & Co.	9,000	
George A. Alden & Co.	7,000	16,000
JULY 12.—By the *Lapland*=Antwerp:		
A. T. Morse & Co.	44,000	
Poel & Arnold	17,000	
Robinson & Co.	11,500	
W. H. Stiles & Co.	5,000	77,500
JULY 14.—By the *Carmania*=Liverpool:		
Poel & Arnold	56,000	
Robinson & Co.	18,000	
H. A. Gould Co.	6,500	90,500
JULY 17.—By the *Amerika*=Hamburg:		
Rubber Trading Co.		9,000
JULY 17.—By the *Campania*=Liverpool:		
Poel & Arnold	20,000	
W. L. Gough & Co.	11,000	
A. T. Morse & Co.	2,500	
Livesey & Co.	2,000	35,500
JULY 17.—By the *Hudson*=Bordeaux:		
George A. Alden & Co.	35,000	
General Rubber Co.	7,000	
Livesey & Co.	9,000	51,000
JULY 19.—By the *Vaderland*=Antwerp:		
George A. Alden & Co.	36,000	
Rubber Trading Co.	22,500	
H. A. Gould Co.	15,000	96,000
JULY 22.—By the *Majestic*=London:		
Poel & Arnold		13,500

EAST INDIAN.

[*Denotes plantation rubber.]

	POUNDS.	
JUNE 28.—By the *Philadelphia*=London:		
Poel & Arnold	*33,000	
A. T. Morse & Co.	*11,500	
Poel & Arnold	17,000	61,500
JUNE 28.—By the *Gutenfels*=Colombo:		
A. T. Morse & Co.	*23,000	
New York Commercial Co.	*9,000	*32,000
JUNE 28.—By the *Dacre Castle*=Singapore:		
W. L. Gough & Co.	5,500	
New York Commercial Co.	*4,500	10,000
JULY 1.—By the *Bloomfontein*=Colombo:		
A. T. Morse & Co.		*11,500
JULY 6.—By the *St. Paul*=London:		
New York Commercial Co.	*30,000	
A. T. Morse & Co.	*11,500	
Poel & Arnold	*5,500	*47,000
JULY 6.—By the *Minnewaka*=London:		
Livesey & Co.	9,000	
General Rubber Co.	*9,000	*18,000
JULY 8.—By the *Teutonic*=London:		
A. T. Morse & Co.		*11,500
JULY 12.—By the *New York*=London:		
New York Commercial Co.	*33,000	
Poel & Arnold	*13,500	*46,500
JULY 13.—By the *Minnehaha*=London:		
General Rubber Co.		*22,500
JULY 15.—By the *Adriatic*=London:		
New York Commercial Co.	*18,000	
Poel & Arnold	*3,000	*21,000
JULY 16.—By the *Boveric*=Colombo:		
A. T. Morse & Co.		*15,000
JULY 19.—By the *Vaderland*=Antwerp:		
George A. Alden & Co.		*6,500
JULY 19.—By the *Minneapolis*=London:		
Robinson & Co.	4,500	
Poel & Arnold	2,500	7,000
JULY 22.—By the *Majestic*=London:		
A. T. Morse & Co.	*11,500	
Poel & Arnold	2,000	13,500

GUTTA-JELUTONG.

JUNE 28.—By the *Dacre Castle*=Singapore:		
Heabler & Co.	225,000	
W. L. Gough Co.	150,000	
George A. Alden & Co.	115,000	490,000
JULY 2.—By the *Indrasamba*=Singapore:		
Heabler & Co.	250,000	
George A. Alden & Co.	260,000	
W. L. Gough Co.	70,000	
Poel & Arnold	45,000	625,000

GUTTA PERCHA.

	POUNDS.	
JULY 2.—By the *Indrasamba*=Singapore:		
George A. Alden & Co.	45,000	
Heabler & Co.	22,000	67,000

BALATA.

JUNE 29.—By the *Coppename*=Demarara:		
Gillespie & Co.		7,000
JULY 7.—By the *Marcas*=Trinidad:		
Frame & Co.		5,000
JULY 13.—By the *Suriname*=Demarara:		
E. F. Darragh & Co.		4,000
JULY 20.—By the *Marowym*=Demarara:		
Middleton & Co.	3,500	
Frame & Co.	2,500	6,000

CUSTOM HOUSE STATISTICS.

PORT OF NEW YORK—JUNE.

	Pounds	Value.
Imports:		
India-rubber	7,553,586	$6,489,620
Balata	30,544	15,438
Gutta-percha	11,556	5,948
Gutta-jelutong (Pontianak)	1,043,420	43,076
Total	8,639,106	$6,554,082
Exports:		
India-rubber	158,638	$114,152
Reclaimed rubber	66,592	7,662
Rubber scrap imported	1,548,081	$120,157

BOSTON ARRIVALS.

	POUNDS.	
JUNE 8.—By the *Waldersee*=Hamburg:		
George A. Alden & Co., African		6,500
JUNE 10.—By the *Saxonia*=Liverpool:		
Rubber Trading Co., African		10,200
JUNE 22.—By the *Dacre Castle*=Singapore:		
George A. Alden & Co., East Indian	3,300	
George A. Alden & Co—Gutta-jelutong	175,000	
W. L. Gough Co.—Gutta-jelutong	440,000	
State Rubber Co.—Gutta-jelutong	200,000	818,300
JUNE 28.—By the *Badenia*=Hamburg:		
George A. Alden & Co.—African	10,200	
Poel & Arnold—African	1,200	11,400

PARA EXPORTS OF INDIA RUBBER, MAY, 1909 (IN KILOGRAMS).

	NEW YORK.					EUROPE.					
EXPORTERS.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	TOTAL.
Gruner & Co.	33,677	28,867	49,113	935	142,592	37,124	5,098	37,800	7,622	92,644	235,236
E. Pinto Alves & Co.	27,200	.....	106,590	.....	133,790	45,560	510	46,530	15,510	108,110	241,900
J. Marques & Co.	26,750	4,040	70,550	.....	101,340	32,980	5,610	73,590	5,940	118,120	219,460
Adelbert H. Alden	16,143	4,983	17,632	40,632	79,390	30,980	2,498	26,011	24,069	83,558	162,948
Pires, Teixeira & Co.	10,880	.....	32,340	.....	43,220	23,460	.....	27,390	.....	50,850	94,070
De Lagotellerie & Co.	20,782	4,554	5,923	10,479	41,738	340	170	660	.....	1,170	42,908
R. O. Ahlers & Co.	6,863	.....	.....	.....	6,863	.....	.....	.....	35,110	35,110	41,973
R. Suarez & Co.	25	5	1,734	.....	1,764	26,195	.....	2,921	2,382	31,498	33,262
Scholz, Hartje & Co.	22,638	4,152	4,258	.....	31,048	.....	.....	.....	.....	.....	31,048
Gordon & Co.	2,666	308	26,991	.....	29,965	.....	.....	.....	855	855	30,820
Itacoatiara, direct	.....	.....	.....	.....	.....	1,568	.....	1,045	818	2,931	2,931
Manãos, direct	136,931	52,157	73,718	132,336	395,042	91,763	20,995	27,597	159,872	300,229	695,269
Iquitos, direct	.....	.....	.....	.....	.....	1,645	342	167	121,577	132,531	132,531
Total, June	334,555	98,966	388,849	184,382	1,006,752	291,615	38,223	244,511	383,255	957,604	1,964,356
Total, May	489,751	123,476	407,190	148,686	1,168,503	536,701	51,485	139,577	808,213	1,535,976	2,704,479
Total, April	707,343	125,604	619,433	443,941	1,896,321	1,044,128	188,500	245,423	876,534	2,354,585	4,250,906
Total, March	786,778	134,535	486,099	523,316	1,930,728	1,044,496	193,071	378,918	846,180	2,462,665	4,393,393
Total, February	1,188,074	218,475	598,018	483,843	2,488,410	869,658	202,450	405,838	615,827	2,093,773	4,582,183
Total, January	1,036,998	218,053	639,306	324,149	2,218,506	1,521,113	154,401	365,351	775,642	2,816,507	5,035,013
Total, six months	4,542,899	919,109	3,138,895	2,108,317	10,709,220	5,307,711	828,130	1,779,618	4,305,651	12,221,110	22,930,330
July to December	4,237,943	840,854	2,956,069	399,205	8,434,071	4,290,004	468,282	909,987	1,272,756	6,941,029	15,375,100
Total, crop year	8,780,842	1,759,963	6,094,964	2,507,522	19,143,291	9,597,715	1,296,412	2,689,605	5,578,407	19,162,139	38,305,430

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Rubber Receipts at Monaos.

DURING May and eleven months of the crop season, for three years [courtesy of Messrs. Scholz & Co.]:

FROM—	MAY. 1909.	MAY. 1908.	MAY. 1907.	JULY-MAY. 1909-8.	JULY-MAY. 1908-7.	JULY-MAY. 1906-7.
Rio Purús-Acre.....*tons*	218	295	375	8,629	8,856	8,255
Rio Madeira	138	54	47	3,073	2,952	3,320
Rio Juruá	251	266	196	4,217	4,196	4,829
Rio Javary-Iquitos	44	10	41	2,458	2,506	2,852
Rio Solimoes	27	27	23	1,007	1,134	926
Rio Negro	28	55	12	583	596	615
Total	706	707	694	19,967	20,240	20,797
Caucho	586	388	549	6,406	5,827	5,137
Total	1,292	1,095	1,243	26,373	26,067	25,934

London.

JULY 9.—The highest prices ever paid for crude rubber at the auctions here were realized to-day for extra good plantation sorts. The offerings included about 10 tons Ceylon and 65 tons Malaya. All the better descriptions were strongly competed for, at an advance of *2d.* to *5d.* over the preceding sale.

TO-DAY'S QUOTATIONS.

Sheet and Biscuits:		
Fine smoked sheet	7*s.* 2*d.*	@7*s.* 2¼*d.*
Good to fine sheet	6*s.* 10½*d.*	@7*s.* 0¼*d.*
Good to fine biscuits	6*s.* 10½*d.*	@7*s.* 1*d.*
Crepe:		
Very pale	6*s.* 11½*d.*	@7*s.* 1*d.*
Medium and palish	6*s.* 3*d.*	@6*s.* 11*d.*
Dark and brown	3*s.* 8*d.*	@6*s.* 2*d.*
Unwashed Scrap:		
Medium to fine	5*s.* 3*d.*	@5*s.* 5¼*d.*
Dark and low	3*s.* 10*d.*	@4*s.* 10*d.*

Sales included 38 cases smoked sheet from Highlands estate, up to *7s. 2¼d.* [=$1.74⅞], and 97 cases crepe, up to *6s. 11¾d.* [=$1.69¾]; 84 cases Malacca crepe, up to *6s. 11¾d.*; 5 cases Warriapolla crepe at *7s. 1d.* [=$1.72.3]. The price of hard fine Pará to-day is *6s. 6½d.* [=$1.59⅛]. The average realized for plantation of all grades was *6s. 4⅛d.* [=$1.54.3], against *3s. 10⅝d.* [=94½ cents] at the corresponding sale last year. The record price was *6s. 9¾d.* [=$1.65¾],—paid for Malaya crepe in May, 1905—until the auction of June 25, when *7s.* [=$1.70¼] was paid for a lot of smoked sheet from Vallambrosa estate.

MEXICAN PLANTATION RUBBER.

Lewis & Peat report the sale at to-day's auction of 40 cases white pressed *Castilloa* sheet, from La Zacualpa estate, in Mexico, at *5s. 3¼d.* [=$1.28.2]. The quantity was approximately 2 tons.

JULY 16.—Plantation has been in good demand, and dearer. Small sales of sheet at *7s. 5d.*, value now *7s. 6d.* and of crepe up to *7s. 8d.* [=$1.86] for fine quality. Business has been done in fair average sheets at *6s.* [=$1.46] for 1910 crops. The price of hard fine Pará has jumped up about *9d.* per pound within a week. A very considerable business has been done, including spot and July delivery at *6s. 6d.* up to *7s. 3d.* [=$1.76]. Soft fine sold up to *6s. 6d.* [=$1.58.] No auctions this week.

Plantation Rubber.

EXPORTS FROM THE FAR EAST.

From Ceylon—January 1 to June 7:		
1909	*pounds.*	421,766
1908		277,012
1907		181,142
From Singapore—January 1 to June 2:		
1909	*pounds.*	1,079,664
1908		824,966
1907		546,435
From Penang—January 1 to April 30:		
1909	*pounds.*	1,223,361
1908		439,010
1907		56,961

PLANTATION YIELDS (IN POUNDS).

	1908.	1909.
Bukit Rajah Rubber Co.:		
June		17,592
Three months to June 30	28,728	54,438
Anglo-Malay Rubber Co.:		
June	28,431	40,744
Six months to June 30	154,791	224,829
Damansara (Selangor) Rubber Co.:		
June		15,782
Six months to June 30	53,910	73,790
Pataling Rubber Estates Syndicate:		
June	[*a* 8,092]	11,749
Six months to June 30	[*a* 33,140]	61,148
Consolidated Malay Rubber Estates:		
June	8,638	17,333
Six months to June 30	39,381	85,118
Vallambrosa Rubber Co.:		
June	16,321	24,000
Three months ending June 30	51,047	73,198

[*a* = Wet rubber.]